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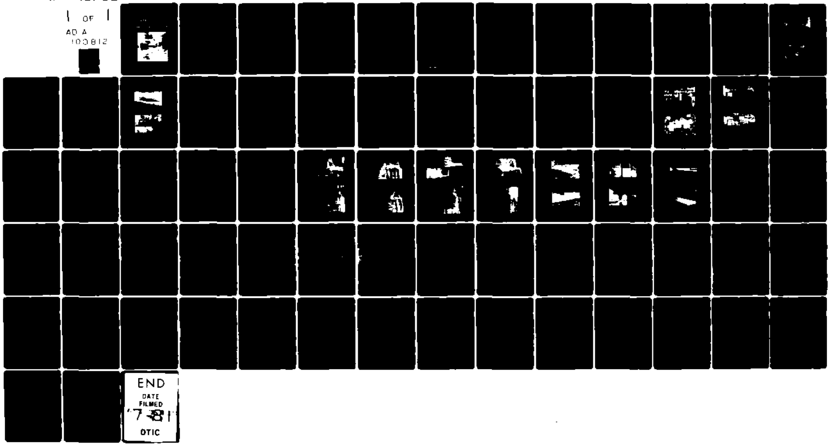

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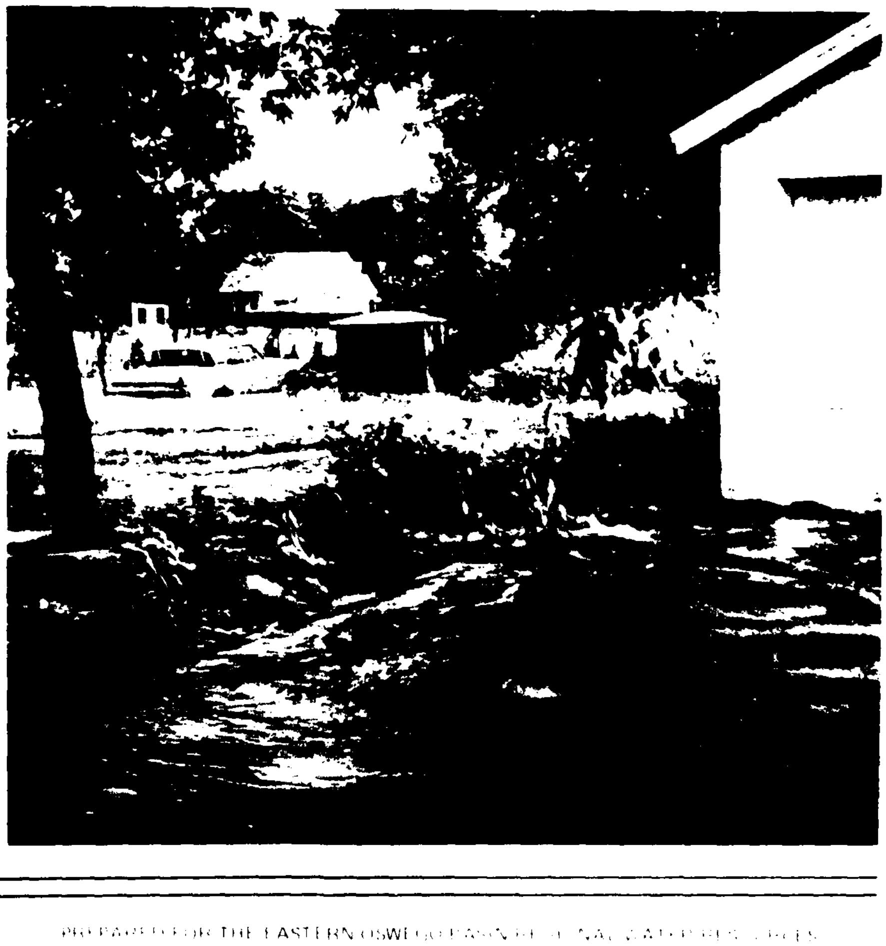

PREPARED FOR THE EASTERN OSWEGO BASIN REGIONAL WATER RESOURCES
PLANNING BOARD BY THE DEPARTMENT OF THE ARMY
BUFFALO DISTRICT CORPS OF ENGINEERS, BUFFALO, NEW YORK

JULY 1973

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. AD-A100	3. RECIPIENT'S CATALOG NUMBER 812
4. TITLE (and Subtitle) Flood Information Oneida Creek, New York		5. TYPE OF REPORT & PERIOD COVERED Final
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s)		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS U.S. Army Engineer District, Buffalo 1776 Niagara Street Buffalo, New York 14207		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS U.S. Army Engineer District, Buffalo 1776 Niagara Street Buffalo, New YOrk 14207		12. REPORT DATE 1973
		13. NUMBER OF PAGES 33
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report)
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Distribtution Unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Floods
Flooding
Oneida Creek

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This reprot has been prepared to serve as a basis to be used in the development of flood protection for the areas along Oneida Creek. Flooding area maps and high water profiles included in the report are meant to be used as an aid for those who must make decisions concerning further land use management programs. Knowldege of stream flow characteristics, meterological data, past floods and their pertinent information were included in the prepartion of this report

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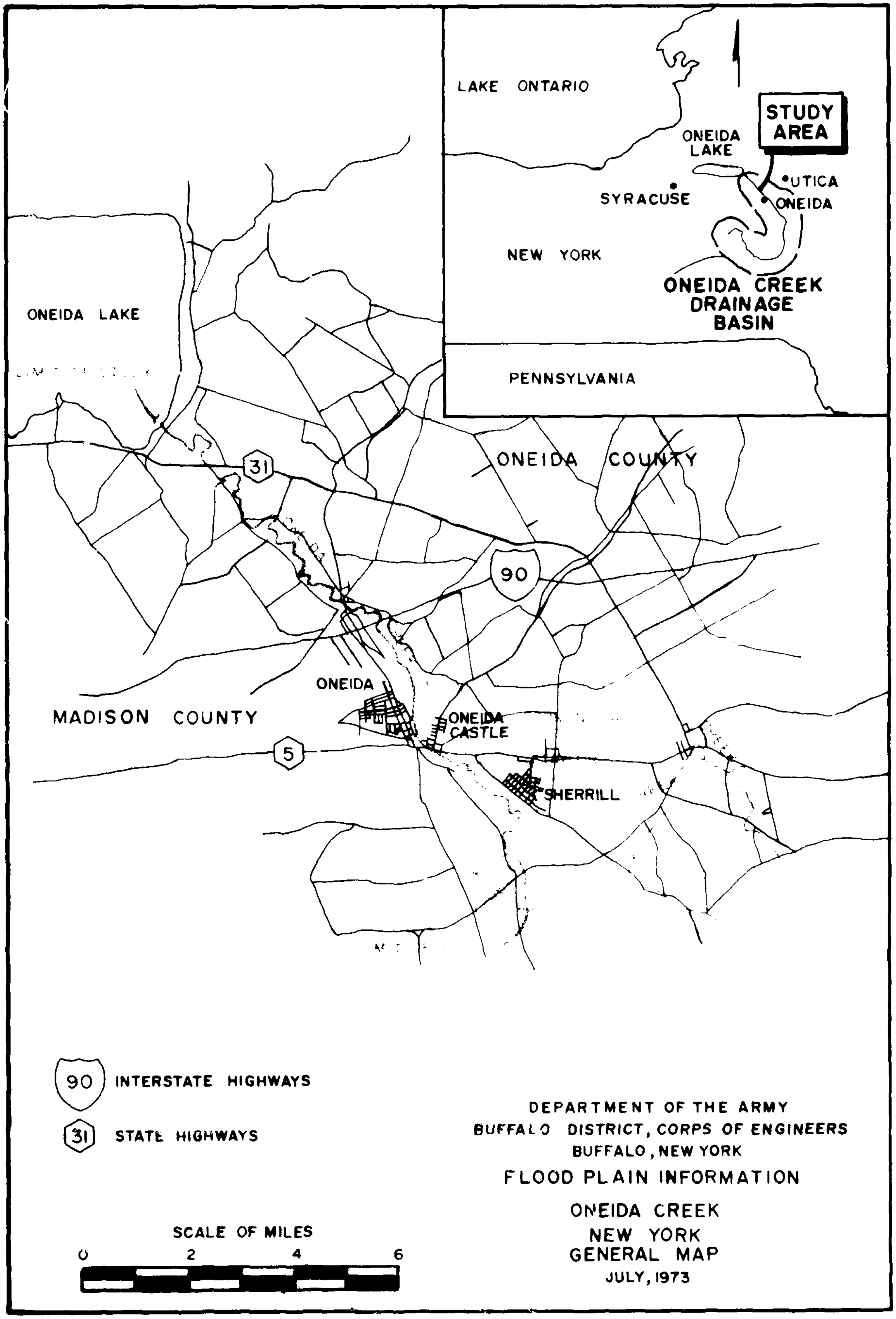
PREFACE

The Oneida Creek area has been the subject of frequent flooding in the past. That portion of the creek considered in this report extends from its mouth at Oneida Lake to a point approximately 19.2 miles upstream. While damages resulting from flood flows along the Oneida Creek flood plain have not been as severe as those occurring along some other waterways, they have brought property, crop and highway damages as well as loss of life to the area.

This report has been prepared to serve as a basis to be used in the development of flood protection for the areas along Oneida Creek. Flooded area maps and high water profiles included in the report are meant to be used as an aid for those who must make decisions concerning further land use management (flood plain zoning) programs. Knowledge of stream flow characteristics, meteorological data, past floods and other pertinent information were included in the preparation of this report.

Various flood protection measures are reviewed in the report. While no solutions are made in regard to preventing future flood damage, it is hoped that the different techniques mentioned will provide an idea of the type of projects which might be initiated. It should be emphasized that prior to the construction of any program for flood protection, an intensive review of social, economical and environmental factors is required. Upon request, the Corps of Engineers, will provide technical assistance to planning agencies in the interpretation and use of the data presented as well as offering guidance and further assistance in the development of additional technical material.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SYRACUSE
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NEW YORK
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31 STATE HIGHWAYS
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DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK
FLOOD PLAIN INFORMATION
ONEIDA CREEK
NEW YORK
GENERAL MAP
JULY, 1973

PLATE I

BACKGROUND INFORMATION

Settlement

The Oneida Creek area, originally inhabited by the Oneida Indians, began to experience settlement by immigrants from the eastern states of Massachusetts, Rhode Island, Connecticut and Vermont in the 1790's. The early settlers found the level lands to the south of Oneida Lake well suited for farming. The streams in the area, flowing from the hills south of Oneida Lake furnished power to run mills and transportation for exporting their crops.

The area quickly grew in population during the early 1800's when the completion of the Erie Canal placed it on the major trade route between New York City and the western states. The Canal crossed Oneida Creek just north of the City of Oneida.

The Stream and Its Valley

The Oneida Creek head waters rise in the hills southeast of Oneida Lake. The upper reaches of the Creek and many of its tributaries flow through relatively rugged terrain and are swift moving streams. Oneida Creek then enters a narrow valley reaching from Munnsville to Sherrill. The level lands in this valley are primarily utilized for agricultural purposes.

From Sherrill to its mouth, Oneida Creek flows across the Oneida Lake plain. This flat area, extending for several miles from the shores of Oneida Lake, is a result of the glaciation which once covered a large portion of New York State. The creek flow becomes more sluggish in this area and meandering of the creek and oxbow formation are evident.

The total drainage basin of the creek and its tributaries is approximately 144 square miles. Drainage areas at various points along the creek are shown in Table 1. Due to the precipitous slope of the creeks in the upland areas south of Sherrill, there are virtually no ponds or storage reservoirs available for temporary storage of storm runoff. As a result, flow in the creeks can vary considerably with the transient weather conditions.

TABLE 1

DRAINAGE AREAS

ONEIDA CREEK

Location	Mileage Above Mouth	Drainage Area (sq. mi.)
At Mouth	0	144
At U.S.G.S. Gaging Station	10.7	113
Above Junction with Sconondoa Creek	10.8	78
Above Junction with Taylor Creek	13.5	65
Above Tributary from Oneida Reservoir	16.0	58
Above Oneida-Madison County Line	17.6	49

The climate of the area is primarily continental in character with comparatively humid summer temperatures rising above 80 degrees and winter temperatures of zero or below are not uncommon. Precipitation amounts to about 40 inches per year and is equally distributed throughout the year. Snowfall is moderately heavy, averaging over 100 inches per year.

Developments in the Flood Plain

In the Study Area, Oneida Creek forms the boundary between Madison and Oneida Counties. The major population center is the City of Oneida while smaller villages and residential sections located along Oneida Creek include Kenwood, Sherrill, Oneida Castle and Durhamville. The Oneida Lake shore is a popular resort area and there are a number of summer homes and vacation cabins located in the vicinity where Oneida Creek enters the lake.

Most of the land within the flood plain outside of the residential and commercial areas is used actively for agricultural purposes or is in wooded lots. There has been some industrial development, centered in the populated areas. A portion of the land near Oneida Lake is within the Verona Beach State Park. This area is well covered with trees.

Both Oneida County and Madison County are projected to experience significant growth in population over the next 50 years, with outward migration from the metropolitan areas of Syracuse to the west and the Utica-Rome area to the east accounting for the increased growth in the surburban areas.

The area along Oneida Creek, being located in between the two metropolitan areas, will no doubt feel the influence of population movements from both areas. The City of Oneida, the largest incorporated unit along the creek, will continue to be the center of population in this local area. The tertiary sector of the economy, located in the City of Oneida, provides the needed services and commodities of the surburban population.

Other communities such as Kenwood, Sherrill, and Oneida Castle will also experience growth over this period. The increase in population of these communities probably will not be of the same extent as that of the City of Oneida.

The recreational attraction of Oneida Lake will serve as a major outlet for leisure time activities of the increased population. However, it is expected that there will be a minimum of new development along Oneida Creek in the immediate vicinity of Oneida Lake since New York State owns much of the land in this area and it is included in the Verona Beach State Park.

FLOOD SITUATION

Data Sources and Records

The U.S. Geological Survey has maintained a stream gaging station on Oneida Creek since 1950. The station is located 70 feet south of the Sconondoa Street bridge and 500 feet north of Sconondoa Creek. A peak discharge of 7,250 cfs was recorded on June 22, 1972. Other peaks of 6,500, 6,480, 5,700, 5,130 and 5,080 cfs have also been recorded as shown in Table 2. Backwater calculations show that the published discharge rates, estimated from recorded stages at the gage for floods greater than 5,000 cfs, are conservative.

TABLE 2

FLOOD CREST ELEVATIONS

ONEIDA CREEK AT ONEIDA, NEW YORK

	Estimated Peak Discharge (cfs)	Stage	Elevation[1]
March 28, 1950	7,440 [2]	13.78	423.11
June 22, 1972	7,250 [3]	14.69	424.02
January 22, 1959	6,500 [2]	14.30[4]	423.63
August 4, 1957	6,480 [2]	13.30	422.63
July 18, 1951	5,270 [2]	12.53	421.86
March 30, 1960	5,130 [2]	12.71	422.04
February 26, 1961	5,080 [2]	12.38	421.71

1. Feet, mean sea level. Based on gage height of 409.33 feet.

2. Published by U.S.G.S.

3. Estimated by Corps of Engineers

4. Backwater from ice.

Flood Season and Flood Characteristics

Flooding along portions of Oneida Creek has been a recurrent problem and has not been confined to any one season. Peak flows have been recorded throughout the first eight months of the year. This is primarily the result of two factors.

First, the flow in Oneida Creek can vary substantially during flood flows due to the lack of storage capacity in the limited number of upland ponds or reservoirs. Excess runoff from heavy spring and summer rains or from early snowmelts has caused numerous instances of flooding. Flow has increased at times over 600 percent from one day to the next. Increases of this magnitude result from unusually heavy rainfalls and are not common. More common are increases on the order of 25 - 50 percent resulting from less severe rain storms and thunderstorm activity. Flows seem to decrease after a rain storm nearly as rapidly as they had increased.

Secondly, the lower reaches of the creek, extending form Sherrill to Oneida Lake, are located on the Oneida Lake Plain. This relatively flat area is a remnant of the glaciation which once covered New York State. The low banks in many sections along this stretch allow the stream to overflow and inundate the adjacent land.

Factors Affecting Flooding and Its Impacts

Obstructions to flood flows - Obstructions to flood flows include such man-made objects as bridges, bridge abutments and piers, dams, dikes and buildings within the floodway. Natural obstructions may include vegetation, sediment deposits, creek meanders and temporary collections of flood debris. Typical obstructions are shown in Figures 1 and 2. All obstructions, whether man-made or natural tend to worsen the effects of a flood flow by restricting the flow to a confined area or by lowering the channel capacity thus creating areas of serious local flooding. Water forced to flow through a restricted opening such as between bridge abutments may flow at a high velocity causing damage to the stream banks or to the abutments themselves. Flows which are slowed down by obstructions will spread out over a larger area and the loss of velocity will allow sediments and debris, carried along at higher velocities, to settle out.

Most of the 21 bridges which span Oneida Creek are obstructive to the flow. They tend to backup flood flows causing inundation of low lying areas upstream. The Erie Canal Crossing and the old New York Central Railroad Bridge near Sconondoa Street are two locations which are especially obstructive to even minor flood flows.

FIGURE 1 - Railroad bridge abutments can cause stream to backup
(Nov. 9, 1972)

FIGURE 2 - Debris collected on bridge pier can partially block flow
(Sept. 27, 1973)

There is a dike along the west bank of the creek as it passes through the City of Oneida which restricts the area of flooding within the City for flows less than the Intermediate Regional Flood magnitude. However, by restricting the area of flooding within the City, the dike will both cause higher velocites through the City of Oneida and flooding in low areas upstream of the diked portion of the creek.

Flood damage reduction measures - Flood damages occur only when something of value is placed in the flood plain. Homes, roads, schools, factories and farm structures as well as farm lands are susceptible to damages from inundation and the high velocities of flood flows. There are several ways of preventing or of lessening the damages sustained by any given flood.

Flood plain zoning can be used to prevent or limit the constructon of new buildings and other structures in the flood plain which would be damaged by flood flows. Typical land uses within flood plain zoning areas are parks, parking lots, and recreational fields. These usually require only debris clean-up and relatively minor repairs after a flood to return them to full use as compared to the time and expense which might be required to restore a residential or commercial structure to a useful condition.

At present, there are no formal flood plain zoning ordinances incorporated in the local zoning laws of the Study Area. It has been left to the good sense of builders and developers to limit the amount of extensive development in the immediate flood plain areas. Due to previous building patterns and the lack of knowledge as to the extent of the flood plain this policy has not been very successful in limiting flood damages.

Zoning does not prevent flooding from happening but, it can reduce the amount of damages sustained. In order to protect existing structures or areas from future flooding other measures of containing, diverting or storing the flood flow must be used.

Among the flood control measures commonly used are levees, dikes, channel improvements, dams and reservoirs. Before construction of a flood control measure, a comparison of the costs versus the benefits must be evaluated. One benefit derived from flood control is the reduction of structural damages which may have occurred at the stream level of the design flood. Other items which cannot be given a fixed value are the lives which may be saved, prevention of diseases, and the reduction of inconvenience and unesthetic conditions which frequently occur during flood flow.

In the Oneida Creek area, there has been a limited amount of work done previously with the goal of reducing flood damages. The most notable effort has been carried out under the direction of the City of Oneida engineering department. During the period from 1949 through 1952 work was done to clean out the creek channel. Material removed from

the creek was placed along the western bank of the creek to create a dike in an area extending from Lenox Street to the sewage treatment plant. A portion of the dike is shown in Figure 3. No attempt was made to construct the dike for any specific design year flood flow. The height to which the dike was built was determined by knowledge of past high water marks in the area.

There had been little regular maintenance of the dike since its completion as evidenced by the large number of trees which had grown up along the dike prior to Hurricane Agnes (June, 1972). During the high flows associated with Hurricane Agnes, the dike was eroded by high velocities in several spots allowing the creek to inundate several streets in the City of Oneida. After the flow receded, work was begun to repair the damaged sections of the dike and to cut away the trees and underbrush growing on the dike. This program, if continued on a regular basis, will make the dike a more effective flood control measure within the City of Oneida, by decreasing the chance of debris being caught along the dike which would then decrease its capacity. However, by confining the flow, dikes in general tend to cause higher velocities and upstream flooding.

A second instance of flood control work is located in the vicinity of N.Y.S. Route 31. In 1959, under direction of the N.Y.S. Department of Transportation, a new bridge was constructed over Oneida Creek. In connection with this, a large meander of the creek was eliminated by straightening the channel. The length of the new channel is approximately 1,800 feet and has an 80-foot width at the bottom and was designed by the Department of Transportation to carry the 50-year flood flow. A portion of the old meander remains on the north side of Route 31 and there is a direct connection to the Creek at its downstream end. The upstream end of the meander has been cut off from the creek by the embankment formed by Route 31.

There are no other flood control measures within the study area except for placement of rip-rap at some of the bridges and bends of the creek. A dam on the creek at Kenwood is not a flood control dam but rather is located so that flow may be diverted into Sunset Lake to be used for industrial purposes. There is no flood storage capacity behind the dam. The dam is shown in Figure 4.

An alternative method of providing some protection for existing structures from flood damages is that of flood proofing. Damages or loss of structures and materials stored on the flood plain from high velocities of flood flow may be substantially reduced by ensuring that they are securely attached to their foundations or otherwise fastened down. Loose material, stored in the flood plain, should be removed if sufficient warning of a flood is received.

Damages to structures from inundation may be reduced by sealing non-essential openings and providing all others with watertight closures. Valuable equipment and materials should be placed on the upper floors of buildings, if possible, as further protection against water damage.

FIGURE 3 Dike built up along eastern bank of [illegible] Creek in the City of [illegible]
(Jan. 25, 1973)

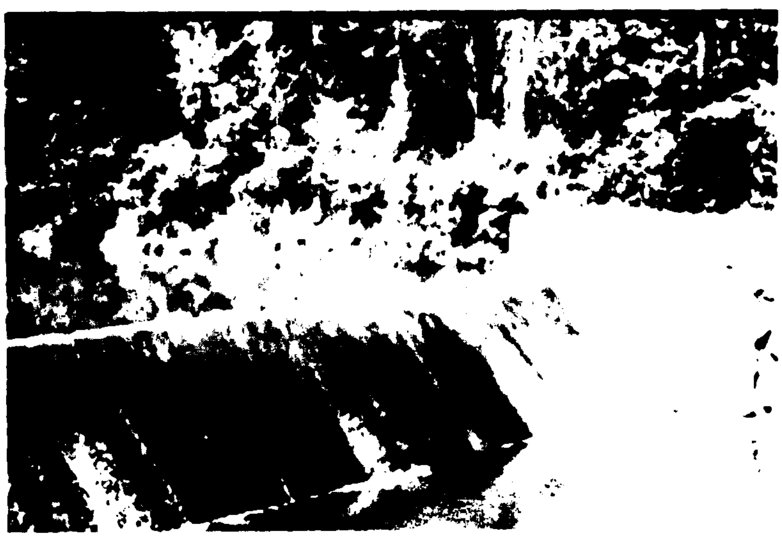


FIGURE 4 Dam near Kenwood [illegible] of flow into Sunset Lake
(Sept. 27, 1973)

Since it is nearly impossible to construct and prohibitedly expensive to finance a flood control measure which will protect an area from all floods, the usual practice has been to design for the 100-year flood. This means that damages resulting from flood flows in excess of the design year flood may still occur.

A flood control measure less costly and requiring less planning than those mentioned above is proper land management. Strip cropping, contour plowing and terracing increases the ability of the soils in upland areas to absorb rainfall thus reducing runoff. For small to medium storms this practice can substantially reduce the total runoff reaching the streams. During severe storms, however, once the soil's capacity to absorb water is reached, any excess rainfall will run off to the streams.

Flood Insurance - In August, 1968, the United States Congress enacted the "National Flood Insurance Act of 1968". This program, administered by the Department of Housing and Urban Development, was established to make flood insurance available for private homes, commercial business, and religious and other properties from private insurance companies. Owners of property located within eligible communities may obtain federally subsidized coverage for damages and losses resulting from the high velocities and inundation of flood flows as well as from mudslides.

In order for a community to become eligible for this program, it must be shown that the community has initiated a plan of land use management (flood plain zoning) and control measures aimed at a reduction of the amount of flood damages. The community must also agree to implement additional control measures as more detailed information on flood hazards becomes available through continued investigation.

New construction or substantial additions to existing structures located within areas subject to frequent flooding are not eligible for flood insurance. This provision prevents the continued unwise development of identified high hazard areas while still providing protection for existing structures.

Application for flood insurance in New York State can be made through the Department of Environmental Conservation (D.E.C.). Assistance in preparing the application and assurance that the prerequisites are met by the community is a service provided by the D.E.C. and from the Federal Insurance Administration.

The communities along Oneida Creek at the present time are not eligible for the Flood Insurance Program. However, these communities will have taken a major step towards fulfilling the requirements of eligibility for flood insurance with the completion of this Flood Plain Information Report.

Flood warning and forecasting - There is no formal flood forecasting system for Oneida Creek. Under the National Oceanic and Atmospheric Administration (NOAA), a stream and river survelliance network is maintained on the major waterways. Stream levels and parameters which would affect the amount of runoff expected from the upland areas are monitored.

From the information obtained through this program, along with the weather forecasts for local areas, the NOAA will issue flood "watches" and flood "warnings" from the Syracuse district office. Areas, where stream levels are near flood stage, and where forecasted weather conditions may result in sufficient runoff to cause flooding, are listed as being in a flood watch area. If the weather conditions are such that flooding seems imminent, then a flood warning is issued.

Once either a flood watch or flood warning condition is deemed to exist, NOAA issues notification to the local agency or department whose responsibility it is to take emergency action. In the Oneida Creek area, the local Civil Defense Agencies or the Sheriff's departments are notified.

Flood Fighting and Emergency Evacuation Plans - Upon receipt of word that a flood watch exists in the Oneida Creek area, the Oneida County Civil Defense Agency begins to make preparations for possible flood fighting actions. These actions include ensuring that the supply of sandbags and sand are readily available, and that men and equipment are available. Radio and television stations are also notified of the flood watch but there are no general public announcements made at this time.

When a flood warning is issued, emergency action is taken immediately. Men and equipment are sent to areas where flooding is imminent and sandbagging operations are started. The radio and television stations are then asked to broadcast news bulletins and emergency instructions as they become necessary.

There are no areas along the creek in Oneida County where immediate evacuation of residents is planned. Evacuation is carried out only as it becomes necessary.

Flood fighting and emergency operations are coordinated by the Civil Defense Agency. Departments involved in various operations include the Sheriff's office, local police departments and village, town, county and State highway departments

In Madison County the Civil Defense Agency coordinates their efforts along Oneida Creek with the Oneida County Civil Defense Agency.

In the past 20 years, the residents of the City of Oneida had come to rely on the dike along the creek to hold back flood flow. During the floods resulting from Hurricane Agnes,

the dike eroded in spots allowing the creek to inundate several streets, leaving many people stranded in their homes. Emergency procedures to evacuate these people by boat were then necessary.

The Madison County Civil Defense Agency has now made plans to evacuate people from certain areas of the City upon first notification that a flood warning condition exists. In the future they will also start to place sandbags along vulnerable areas of the levee.

In other areas of Madison County along the creek, outside of the City of Oneida, there are no locations where immediate evacuation is planned. A number of cabins near the mouth of the creek are subject to flooding from Oneida Lake. The people there are notified by phone that evacuation may become necessary.

PAST FLOODS

Summary of Historical Floods

Flooding of the Oneida Creek area has been a common event. Major flooding and damage to property has occurred in 1922, 1936, 1950, 1959, and 1972. Mention was made in one newspaper article of a flood which had occurred in 1891. While flooding of the area most certainly occurred before 1891 there are no newspaper files for any period prior to 1900.

Flood Records

Records of flood flows and flood crest elevations at the stream gaging station on Oneida Creek at the City of Oneida were obtained from the U.S. Geological Survey. Records of the level of Oneida Lake were also obtained to determine the maximum water elevation of Oneida Creek at its mouth. Newspaper accounts were reviewed to provide information concerning damages sustained during past floods. Recorded flood crest elevations at the U.S.G.S. gaging station at the City of Oneida are shown in Table 2.

Flood Descriptions

The Oneida Creek flood plain has been subjected to numerous instances when homes, streets and farm lands have been covered with flood water. Many times this flooding condition does no permanent damage but only creates temporary nuisance conditions. Minor floods such as this often go unrecorded and are accepted as a normal occurrence. Figures 5 to 8 show some of the flooding which has occurred in the past.

Accounts of some of the floods of the past were obtained from newspaper articles. Excerpts from these articles, carried by the Oneida Dispatch and the Oneida Daily Dispatch, follow.

JUNE 1922

ONEIDA STRUCK BY RECORD DELUGE

COVERS BIG AREA AND CAUSES ENORMOUS LOSS

Waters Higher Than During Flood of 1891 - Factories and Residences in District Suffer Severe Damage - Streets Washed Out and Gardens Ruined - Stockbridge Valley Swept Entire Length By Water and Wind

- More than two feet of water covered the (Ontario and Western R.R. passenger) station house floor.

- A stretch of nearly half a mile from Ruby Lumber Company to the Oneida Creek bridge on Sconondoa Street was under water by noon. In some places the water was four feet deep.

- East Walnut, Wilson, Prospect, Sconondoa, Devereux, Hardin, Linden, Pearl and Maple Streets and Lexington and Pleasant Avenues were under water in the eastern part of the city.

- Damage beyond estimation was done to crops, buildings, highways and bridges throughout the flood district which extended from Munnsville to Oneida Lake, a distance of more than 20 miles.

- Householders, in addition to their house and property damages, have suffered heavily from ruined gardens, lawns and sidewalks. Nearly all the unpaved streets in this section had just been repaired for oiling. Monday they were almost impassable.

- The damage to farm crops throughout Central New York is enormous.

- Vast areas were flooded to a depth of five and six feet in places. Water tearing its way down from the hills completely covered growing crops with mud a foot thick or else washed them completely away.

- The body of -- the only victim of Sunday's flood was found at 12:30 Monday, about 20 feet south of the Sconondoa Street crossing of the New York, Ontario and Western railroad.

MARCH 1936

ONEIDA CREEK IS BANKFULL

ALL NIGHT RAIN BRINGS HEAVY VOLUME OF WATER-MANY SECTIONS FLOODED

- The creek is bankfull and overflowing today most of the 25 mile area between Kenwood and Oneida Lake. The winding stream with its flood danger was a source of alarm to many residents in the East Walnut Street area.

CELLARS ON HALF A DOZEN STREETS FLOODED

Await Cold Weather

- The floods started during the afternoon when the weather was the warmest.

- Storm sewers are unable to carry off the extra water with the result it remains in the cellars (and in many streets).

MARCH 27, 1950

STORM BRINGS RISE IN LEVEL OF CREEK

OVERFLOWS EXPECTED IN AREA UNPROTECTED BY DIKE

- The heaviest rainstorm of the year hit Oneida today, raising the Oneida Creek waters that already were swelling from the melted snows coming down from the hills.

- A combination of rain and melting snow at the same time is considered the most likely to cause floods in this city. However, a dike from Prospect Street to the New York Central culvert along the west side of Oneida Creek has been built in the past few years to keep the high waters off the city's low areas.

- This will be a major test of it for this year.

MARCH 28, 1950

CREEK FLOODS AREAS UNGUARDED BY DIKE

LARGE AREA INUNDATED BY HEAVY RAIN STORM AND MELTING SNOW

- Oneida Creek overflowed its banks during the night as a result of yesterday's rainstorm and tremendous rush of water into the creek from melted snows in the hills.

- But the city's dike along the west bank was doing its job. Only water in the lowlands, scene of many a flood in previous years, was surface water and not from the creek.

- But many places where there is no dike, the creek over flowed its banks. Along most of the east side of the the creek, properties were under water. A large area was flooded along the stream south of Rt. 5. Properties on the east side of the creek at Sconondoa Street were under as much as a foot and a half of water.

JANUARY 22, 1960

MERCURY DIP EXPECTED TO EASE FLOOD THREAT

EVACUATE 25 AREA FAMILIES

- Falling temperatures predicted for today and tonight are expected to ease flood conditions in the Oneida area after nearly 24 hours of unseasonal rains and thawing snow.

- . . .Oneida Creek started to back up onto the flats and the eastern section of the city when an ice jam developed at the old bridge over the creek connecting the city and Durhamville on old Rt. 46.

JUNE 22, 1972

TROUBLE POURS OUT OF CREEKS IN AREA

- Homes and business establishments in the flats area of the city were ordered evacuated by police and fire officials today as water from Oneida Creek covered the area. The flooding followed heavy rains and the breaking of the dike at several places along Oneida Creek.

- Electricity and gas service to the area was shut off.

- Evacuation was reported on the edge of Oneida Castle near Route 5, the Town of Vernon, along Prospect Street . . . .

- Police Chief George A. Murphy said every home in the area of the flats had been visited by police, firemen or Madison County Sheriff's deputies requesting the families to evacuate . . . some elderly residents have been evacuated by ambulance.

- By 1:00 P.M. the floodwaters had reached the doors of the business places in the Wilson Street Shopping Center.

- . . . the area where East Walnut meets Wilson dips about five feet below street level. The water was more than knee deep on Wilson Street.

- . . . (trailers) in the trailer park just east of Oneida Creek in the Town of Vernon had water three feet above the floor.

- On Route 5 in Oneida Castle second and third graders from the Oneida Castle School stopped and watched the rescue of about ten animals from the Oneida Animal Hospital.

- Flooded sewers were the main problem in Sherrill and Department of Public Works were pumping at several locations. The Sherrill-Kenwood Fire Department pumper was at the sewage treatment plant attempting to relieve pressure there. Much of the Oneida Community Golf Club course was under water.

JUNE 23, 1972

WATER RECEDING; HIGH WINDS FELL TREES

- Many of the city's streets and areas roads closed Thursday due to high water, were reopened.

- Residents of about 40 homes in the city's "flats" were unable to return to their homes this morning.

- The city's sewage treatment plant was so overloaded with water, it was not operating today . . . there was 11 feet of water in the wet well above the normal mark.

- The City Fire Department used two crews to pump cellars . . . An officer said in some cases the water runs back into the cellar from the walls or drains as soon as it is pumped out.

FIGURE 5 - Trailer park adjacent to Oneida Creek was flooded
(June 23, 1972)

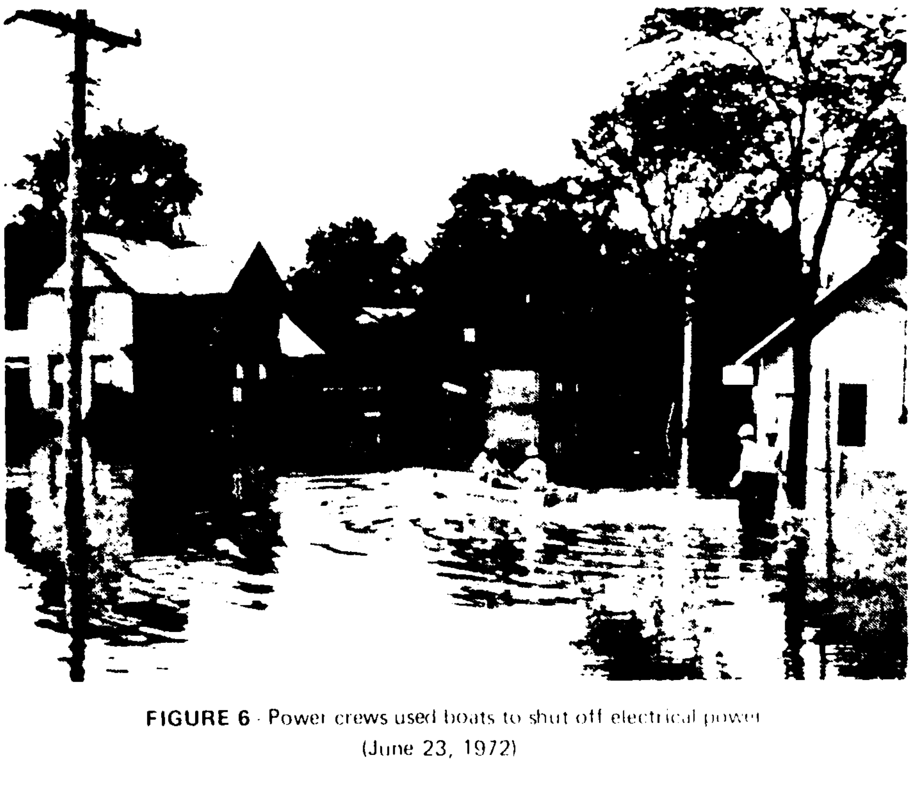


FIGURE 6 - Power crews used boats to shut off electrical power
(June 23, 1972)

FIGURE 7

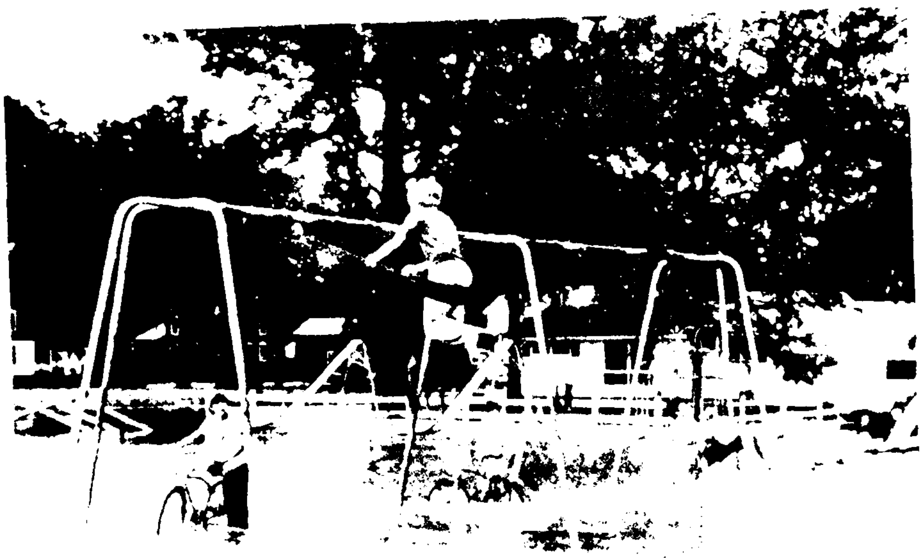


FIGURE 8

FUTURE FLOODS

Flood flows for this report were estimated using data collected by the U.S. Geological Survey for Oneida Creek as well as data obtained for streams having similar drainage basin and flow characteristics. While higher flows may be possible, their occurrence would be extremely rare and would occur only under the most extraordinary circumstances.

Intermediate Regional Flood

The Intermediate Regional Flood is defined as one that could occur once in 100 years on the average, although it could occur in any year. The peak flow of this flood was developed from statistical analysis of streamflow at the U.S. Geological Survey Station in Oneida, other stations in the region with similar hydrologic characteristics, and runoff characteristics for the stream under study. Peak flows thus developed for the Intermediate Regional Flood at selected locations in the study area are shown in Table 3.

Standard Project Flood

The Standard Project Flood is defined as a major flood that can be expected to occur from a severe combination of meteorological and hydrological conditions that is considered reasonably characteristic of the geographical area in which the study area is located, excluding extremely rare combinations. The Corps of Engineers, in cooperation with the NOAA Weather Service, has made comprehensive studies and investigations based on the past records of storms and floods and has developed generalized procedures for estimating the flood potential of streams. Peak discharges for the Standard Project Flood at selected locations in the study area are shown in Table 3.

Standard Project Flood Frequency

It is not practical to assign a frequency to the Standard Project Flood. The occurrence of such a flood would be a very rare event; however it could occur in any year and is not the most severe flood that may occur.

TABLE 3

PEAK FLOWS FOR INTERMEDIATE REGIONAL AND

STANDARD PROJECT FLOODS

ONEIDA CREEK

Location	River Mile	Drainage Area (sq. mi.)	Intermediate Regional . Flood Discharge (cfs)	Standard Project Flood Discharge (cfs)
Mouth	0.0	144	13,380	26,900
At U.S.G.S. Gaging Station	10.7	113	11,400	22,900
Upstream of Junction with Scononduoa Creek	10.8	78	8,920	17,900
Upstream of Junction with Tributary from Oneida Reservoir	16.0	58	7,350	14,800
At the Oneida-Madison County Line	17.6	49	6,570	13,200

Hazards of Large Floods

High water levels and high velocities are the primary destructive elements of flood flows. Generally it can be assumed that the higher the flood flow, the greater will be the damage sustained.

In residential, commercial or industrial areas high water may inundate buildings leaving both the buildings themselves as well as articles contained in them waterlogged and subject

to mold and mildew. Automobiles and machinery are left subject to rust and corrosion. Extensive cleanup operations are commonly required to remove damaged articles and mud left by the high water.

Roads, temporarily covered by high water, may be impassable making access to some areas impossible by ordinary means of transportation. Agricultural fields may suffer from both erosion and siltation or from deposition of debris leaving them unusable for cultivation or for pasture land.

High velocities are capable of carrying away loose material stored in the flood plain. The force of flood flows can also erode portions of the flood plain, undermining stream banks, roadways, building foundations and bridges. These structures can also be damaged by the impact or buildup of debris carried by the flood flows.

Water supply lines and sewer pipes may also be damaged by flood flows. Along with the inconveniences resulting from service interruptions, contaminated water supplies and the release of raw sewage may lead to conditions favorable for the development of disease. Flood flows may also result in the loss of life or injury of persons stranded by high water levels or swept away by the high velocity.

Flooded areas and flood damages - The Intermediate Regional and Standard Project Floods for Oneida Creek will inundate large areas of land in the Study Area. Flooded areas are shown on Plates 3 to 8. Because of the scale of the mapping, these areas may vary somewhat in reality from those shown on the plates. Selected cross sections are shown on Plates 12 and 13.

This Study did not include any of the tributaries or land areas adjacent to the tributaries. Without doubt, there are substantial areas of land which will be inundated along the tributaries. Several bridges along the tributaries will be overtopped during the projected flood flows reported herein. Figures 9 to 12 show estimated heights to which the Intermediate Regional and Standard Project Floods will rise in selected locations in Study Area.

Obstructions - Obstructions to flood flows can worsen the effect of flood flows by causing a backup of water and creating localized flooding. As shown on the high water profiles, (Plates 9 to 11), nearly all of the 21 bridges that cross Oneida Creek are obstructive to the Intermediate Regional and Standard Project Floods. Only the Route 31 bridge and the Penn Central Railroad Bridge near Route 5 are not obstructive to either the Intermediate Regional or the Standard Project Floods. Bridge elevations as well as water surface elevation for the Intermediate Regional and Standard Project Floods are given in Table 4. Many of the bridges are shown in Figures 13 to 18.

The Erie Canal bridge has small openings while its great height prevents overtopping. The Standard Project Flood rises high behind the bridge to build up the head needed to push the water through the restricted openings at a high velocity. The backwater effect of this bridge submerges several bridges upstream. The old New York Central Railroad bridge also has restricted openings and backs up the Standard Project Flood to inundate the City of Oneida and several bridges upstream. The backwater calculations indicate that the Standard Project Flood will reach an elevation of over 442 feet at the old New York Central Railroad bridge. Topographic mapping of the area as well as limited field survey work show that much of the City of Oneida will be flooded by the backwater from this bridge. The mapping also indicates that the drainage basin boundary to the west of the creek is at an elevation of approximately 435. This situation would allow a portion of the back water to overflow to the adjacent drainage basin thus affecting the flood crest elevation both upstream and downstream from the bridge. However, it is felt that the volume of water lost to the adjacent basin at this point will be negligible and have little affect on the flood profiles.

The dike which has been constructed along the left bank within the City of Oneida tends to restrict the water area thus creating high velocities and some upstream flooding.

In addition to the bridges still in use there are three structures that have had the decking removed but for which the piers or abutments remain. These obstructions can accumulate debris and, particularly in the case of the railroad bridge abutments near Kenwood, offer a constriction which affects the high water profile for a considerable distance upstream.

The dam (spillway) upstream of Kenwood Road bridge presents a unique situation when considering its effect on the flood plain. During the Standard Project Flood, the dam would be completely submerged due partly to the backwater behind the abandoned railroad bridge mentioned above. The adjacent land area in this case is flooded. However, the Intermediate Regional Flood is a much different flow condition. Approximately 0.75 miles upstream of the dam, the creek flows over the right bank while the main channel carries its full capacity. A short distance above the dam, the overbank ground level is well below the top of the channel bank, thus channelizing the flow into two channels. The overbank flow bypasses the spillway and joins the main channel downstream of the dam. This overbank flow varies from less than half of the total discharge for flows less than Intermediate Regional Flood to more than half for the Intermediate Regional Flood.

TABLE 4

ELEVATION DATA

BRIDGES ACROSS ONEIDA CREEK

	Mileage Above Mouth	Under-clearance Elevation[1]	Water Surface Elevation IRF	Water Surface Elevation SPF
Lake Road	0.01	372.9	375.2	375.5
Route 13	0.06	376.6	376.0	377.6
Route 31	2.24	392.3	383.8	389.7
Swallow Road	3.98	393.6	395.6	399.4
Erie Canal	8.58	417.76	418.5	429.6
Route 46	8.73	420.64	420.5	430.5
Oneida Street	8.84	415.76	420.8	431.0
N.Y.S. Thruway	9.64	427.16	422.8	431.4
Penn - Central R.R.(new)	10.10	426.27	424.6	433.6
Bennett Road	10.40	419.27	425.5	433.8
N.Y. Central R.R.(old)	10.88	427.99[2]	428.8	442.8
Sconondoa Street	11.19	421.74	429.1	442.8
Route 365A	11.77	426.70	429.9	442.9
Penn Central R.R.	13.12	450.50	443.2	449.8
Route 5	13.19	440.0	445.2	449.8
Middle Road	13.90	444.0	448.2	450.8
Foot Bridge	15.63	461.12	465.4	466.9
Foot Bridge	15.88	463.64	467.7	468.8
Kenwood Street	16.11	472.39	473.8	476.1
Kenwood Road	17.04	480.32	484.2	487.1
Peterboro Road	18.54	504.32	508.3	510.0

1 Elevations taken at upstream side of bridges.

2 High point of arched openings

Velocities of flow - Velocities of flood flows vary considerably. Cross sectional area, shape of the cross section, stream bed slope, vegetal cover and other topographical features can have a decisive effect on the velocity of flow. Flows in Oneida Creek were calculated to vary from a little over 1 foot per second to over 15 feet per second for the Intermediate Regional Flood. The velocities can be expected to be somewhat higher for the Standard Project Flood ranging again from a little over 1 foot per second to over 25 feet per second. The maximum velocities for both the Intermediate Regional and the Standard Project Floods will occur at the Erie Canal crossing resulting from the small openings of the structure which allow Oneida Creek to flow through. The relatively great height of the structure itself requires that the entire volume of the Standard Project Flood flow through the restricted openings at a high velocity.

Velocities less than 5 feet per second in a stream will allow sediment to drop out, allowing for possible buildup of silt, sediment and debris. Velocities in excess of 5 feet per second can cause erosion of stream banks and also carry away materials stored in the flood plain. The high velocities can also easily sweep a person off his feet and carry him downstream with possible injury or loss of life.

Rates of rise and duration of flooding - Intense rainfalls that accompany severe storm fronts usually produce the floods occurring in the Oneida area. There is a time lag of at least several hours to half a day before overbank flooding occurs in the City. Floods generally rise slowly and stay out of banks for long periods of time. For the Intermediate Regional and Standard Project Floods at the U.S.G.S. gaging station upstream from the Sconondoa Street Bridge, Table 5 gives the maximum rate of rise, height of rise (from critical stage level, 9.5 feet, to maximum floodflow level), time of rise (time period corresponding to height of rise), and duration of critical stage (period of time flooding is above critical stage level).

TABLE 5

RATES OF RISE AND DURATION
(Oneida Creek at U.S.G.S. Gaging Station)

Flood	Maximum Rate of Rise (ft/hr)	Height of Rise (ft)	Time of Rise (hrs)	Duration of Critical Stage (hrs)
Intermediate Regional Flood	1.1	9.0	10	24
Standard Project Flood	1.9	23.6	28	77

FIGURE 9 Possible future flood height at Lenox & Main St

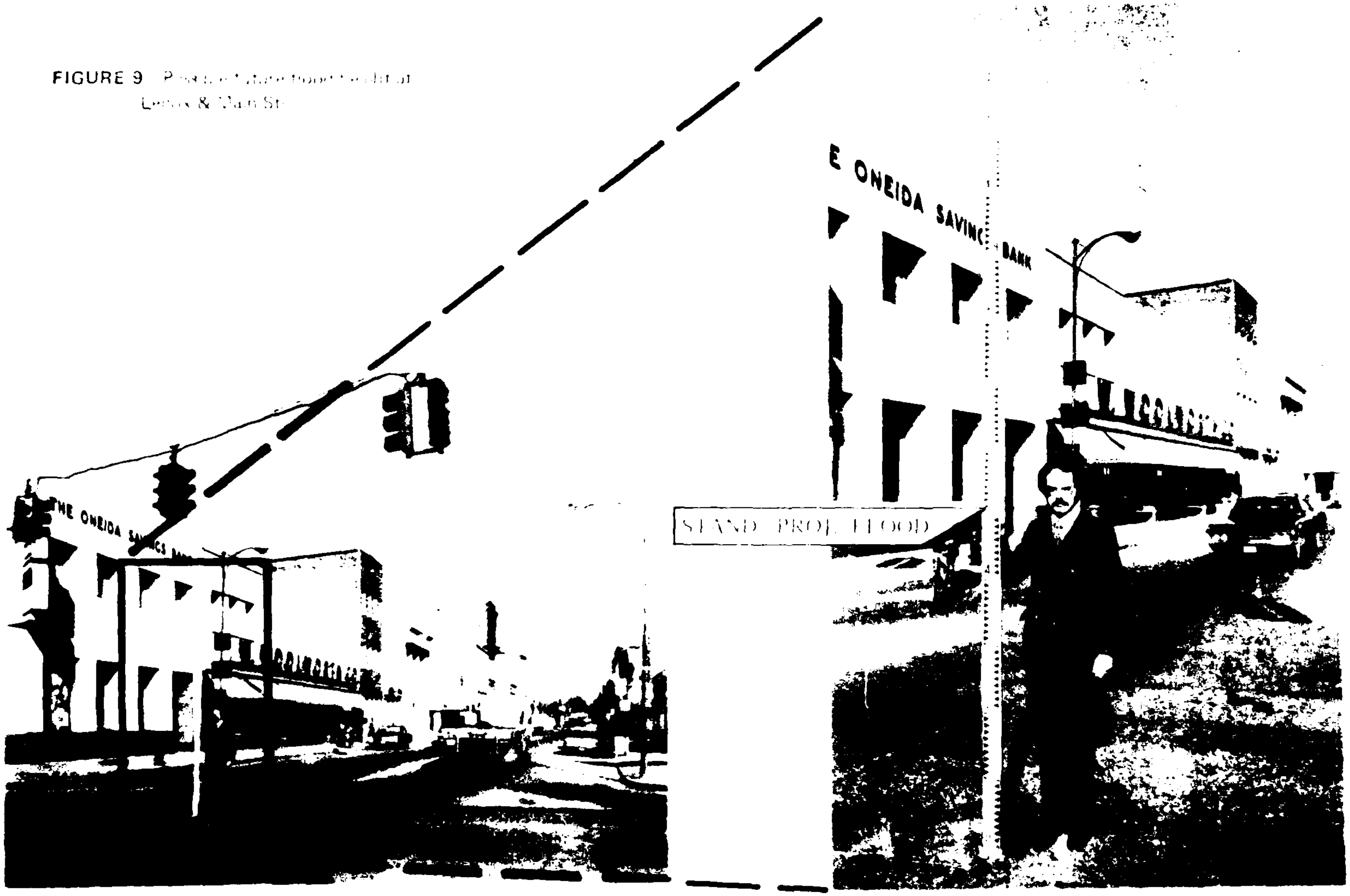
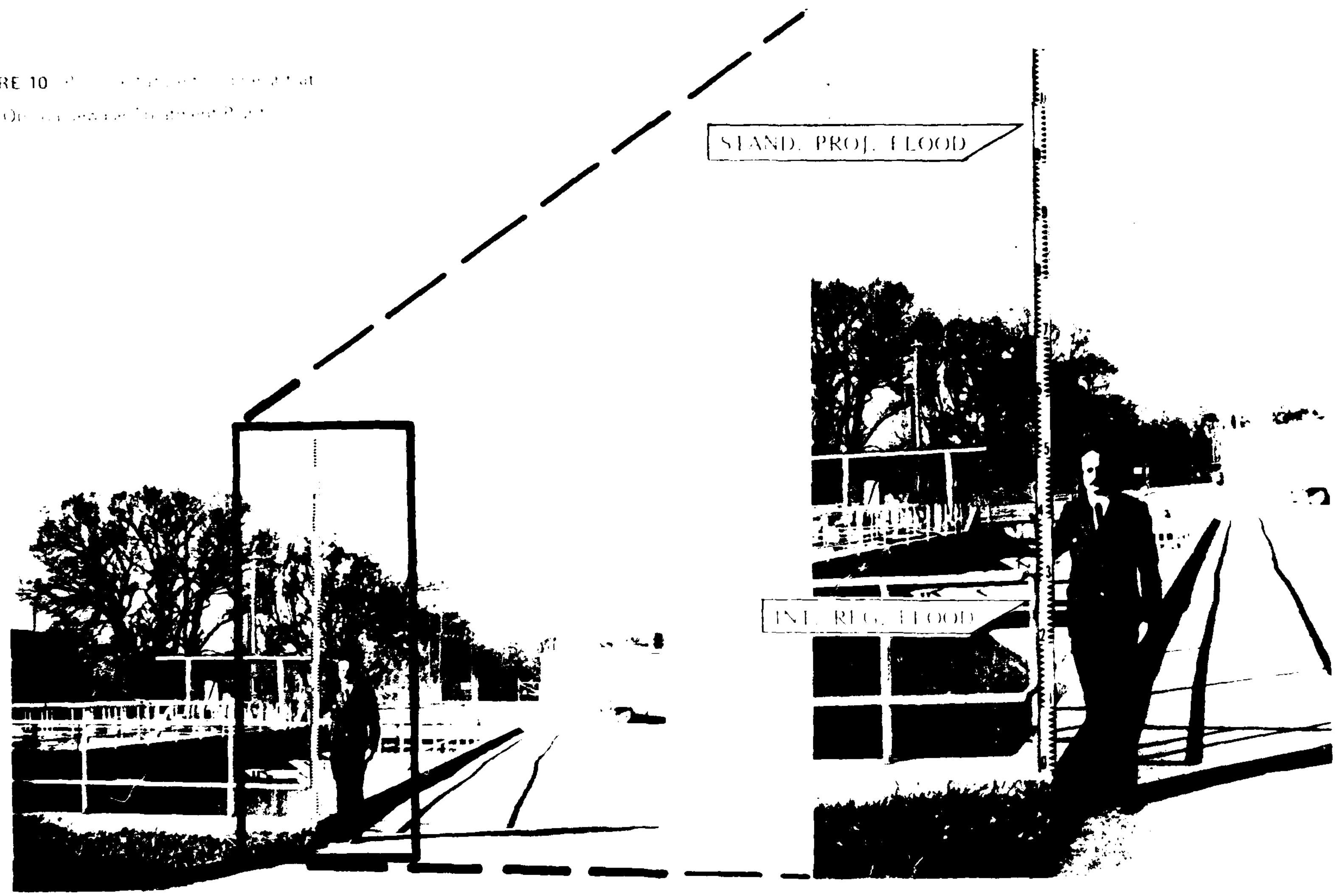


FIGURE 10



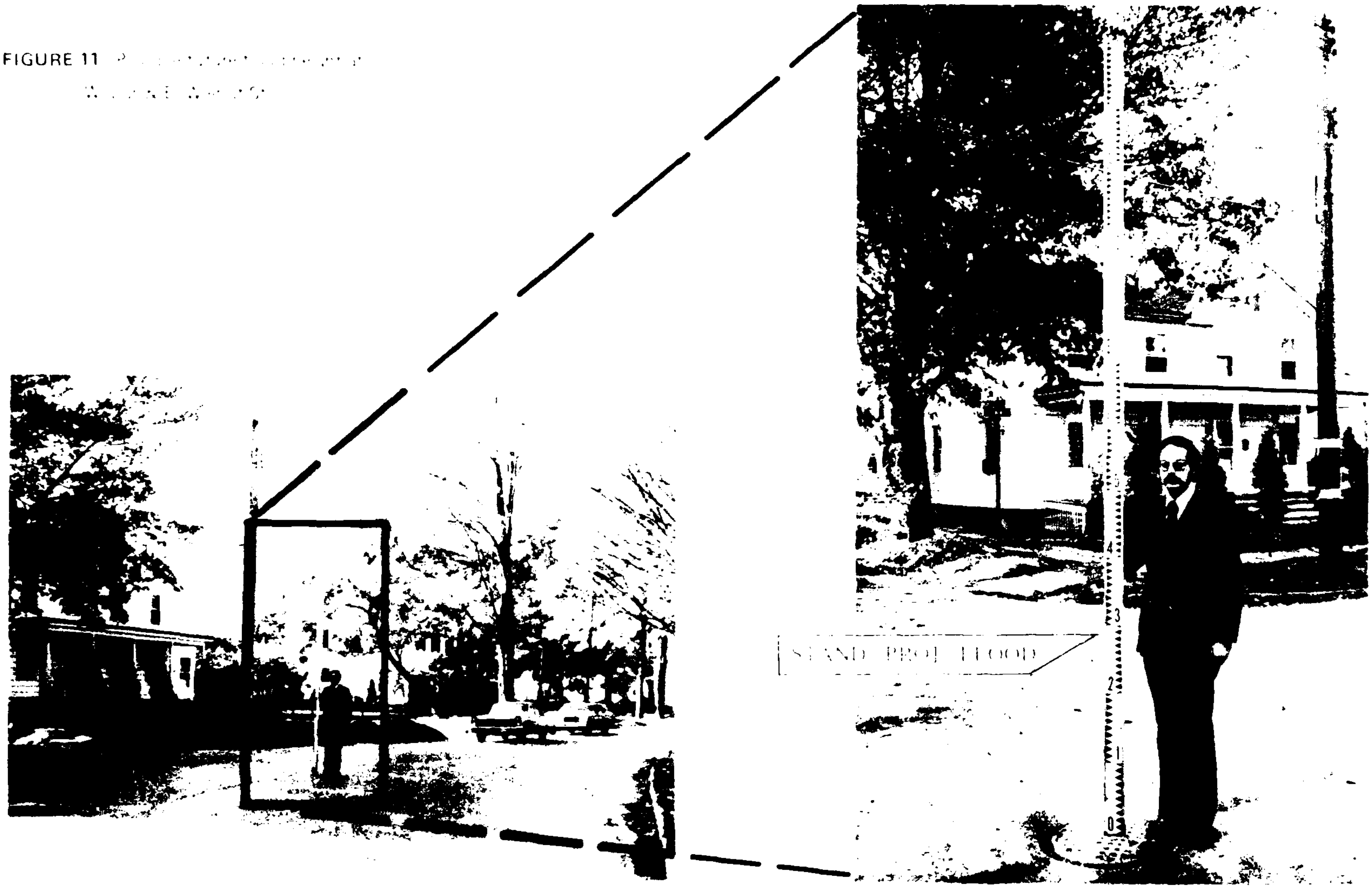


FIGURE 11

FIGURE 12

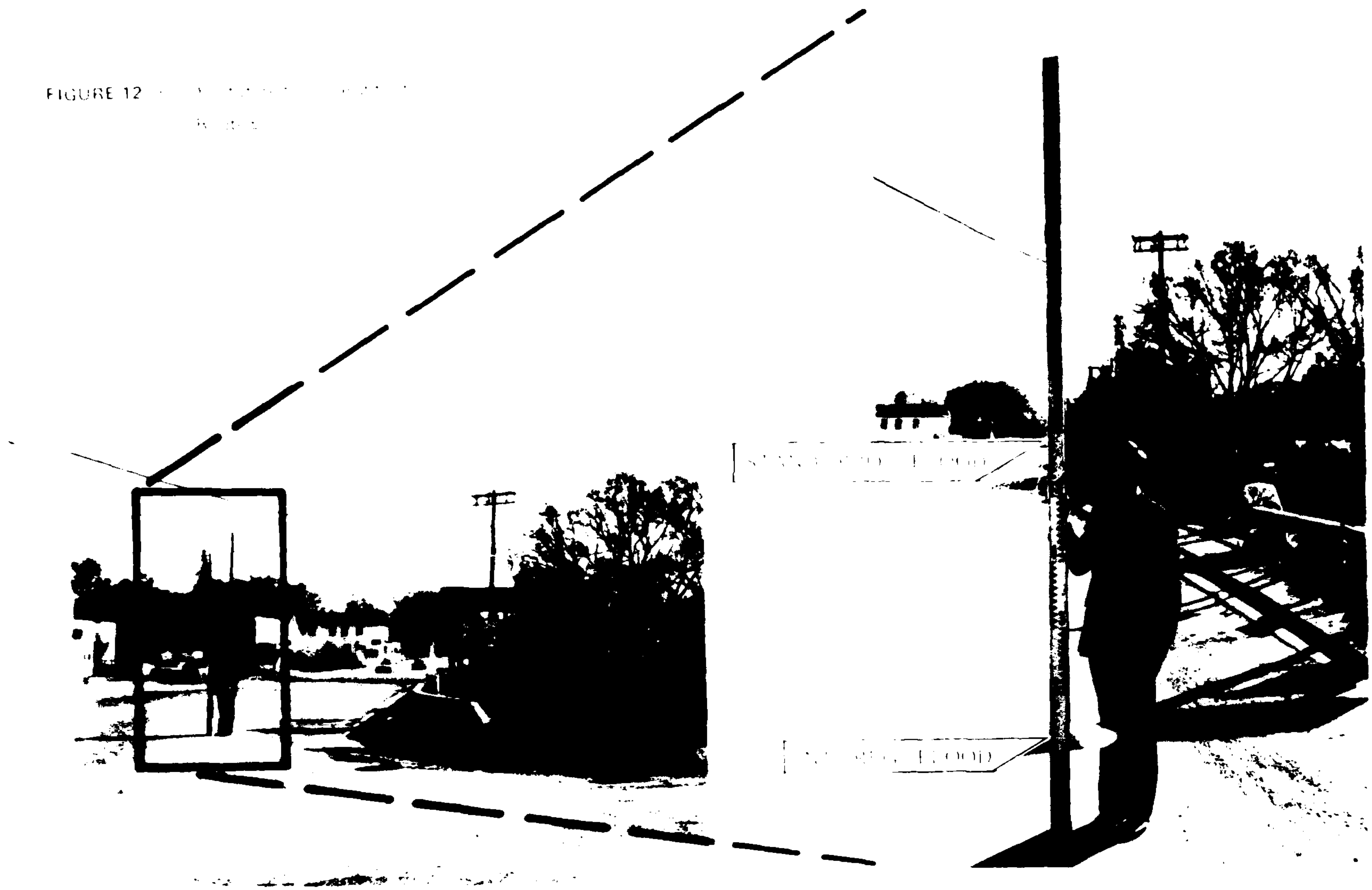


FIGURE 13 - Lake Road Bridge at mouth of Oneida Creek (Nov. 9, 1972)

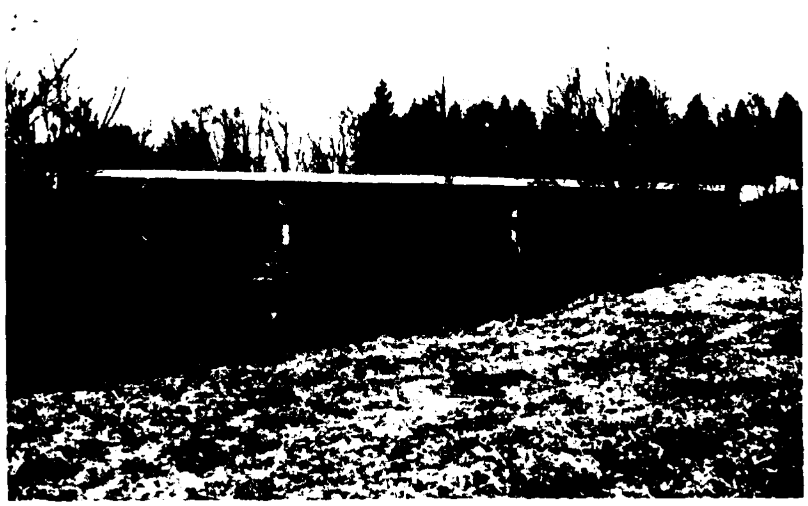


FIGURE 14 New York State Thruway Bridge (Jan. 25, 1973)

FIGURE 15 Erie Canal Crossing Restricted openings cause flood flows to back up. (Sept. 27, 1973)

FIGURE 16 Old New York Central Railroad Bridge. Arched openings would cause SPF flow to inundate much of the City of Oneida. (Sept. 27, 1973)

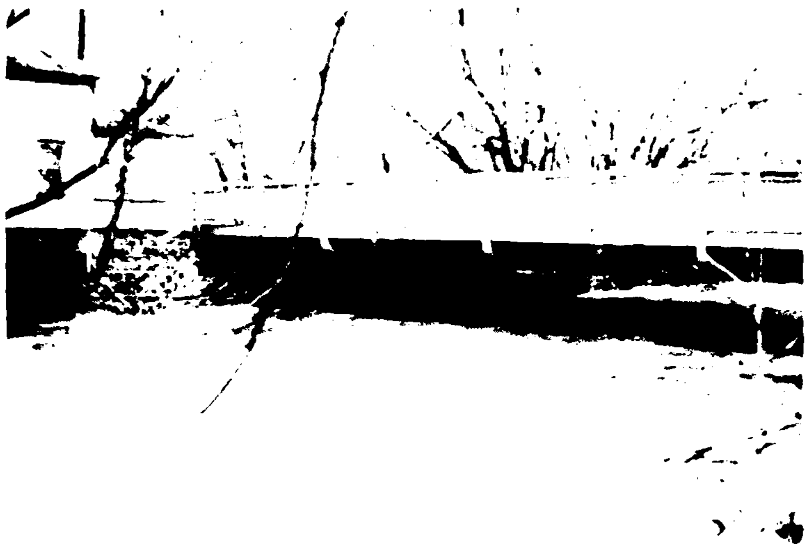


FIGURE 17 · Sconondoa St. Bridge, near the U.S.G.S. gaging station
(Nov. 9, 1972)

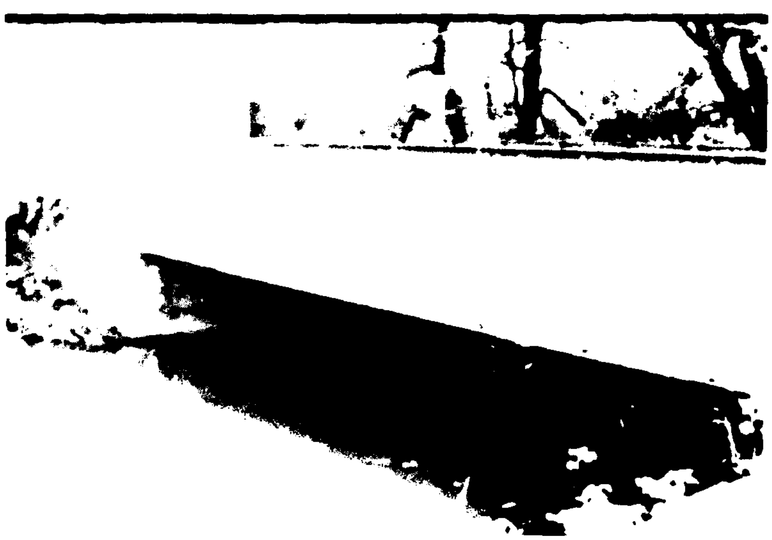


FIGURE 18 Middle Road Bridge
(Sept. 27, 1973)

GLOSSARY

Backwater. The resulting high water surface in a given stream due to a downstream obstruction or high stages in an intersecting stream.

Flood. A relatively high stream flow as measured by either gage height or discharge quantity. An inundation of lowlands not normally occupied by water.

Flood Crest. The highest elevation reached by flood waters flowing in a channel.

Flood Plain. Land areas adjacent to a stream which are subject to occasional flooding.

Flood Profile. A graph showing the relationship of water surface elevation to location, the latter generally expressed as distance above mouth for a stream of water flowing in an open channel. It is generally drawn to show surface elevation for the crest of a specific flood, but may be prepared for conditions at a given time or stage.

Hurricane. An intense cyclonic windstorm of tropical origin in which winds tend to spiral inward in a counterclockwise direction toward a core of low pressure, with maximum surface wind velocities that equal or exceed 75 miles per hour (65 knots) for several minutes or longer at some points. Tropical storm is the term applied if maximum winds are less than 75 miles per hour.

Intermediate Regional Flood. A flood having an average frequency of occurrence in the order of once in 100 years although the flood may occur in any year. It is based on statistical analyses of streamflow records available for the watershed and analyses of rainfall and runoff characteristics in the general region of the watershed.

Meander. A reverse or S-shaped bend in a stream created by erosion of the banks.

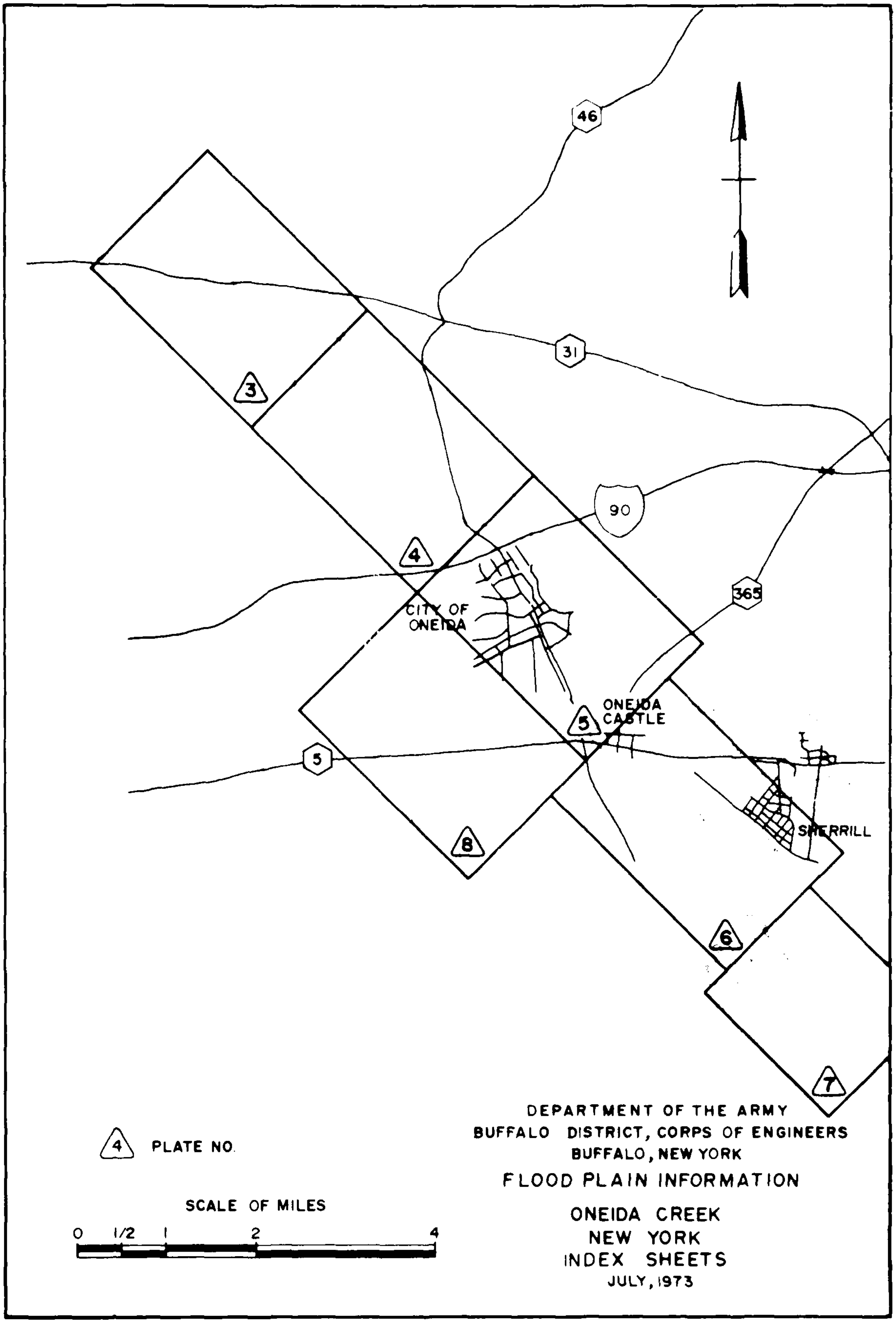
Return Period. That period of time during which a given event is not expected to occur. Ex.: a flood flow with a return period of 100 years is not expected to occur on the average more than once each 100 years.

Runoff. That portion of the rainfall or snowmelt which is not absorbed by the ground and reaches a stream or other body or water.

Stage. The elevation of the water surface above a given datum.

Standard Project Flood. The flood that may be expected from the most severe combination of meteorological and hydrological conditions that are considered reasonably characteristic of the geographical area in which the drainage basin is located, excluding extremely rare combinations. As used by the Corps of Engineers, Standard Project Floods are intended as practicable expressions of the degree of protection that should be sought in the design of flood control works, the failure of which might be disastrous.

Underclearance Elevation. The elevation at the top of the opening of a culvert, bridge or other structures through which water may flow along a watercourse.

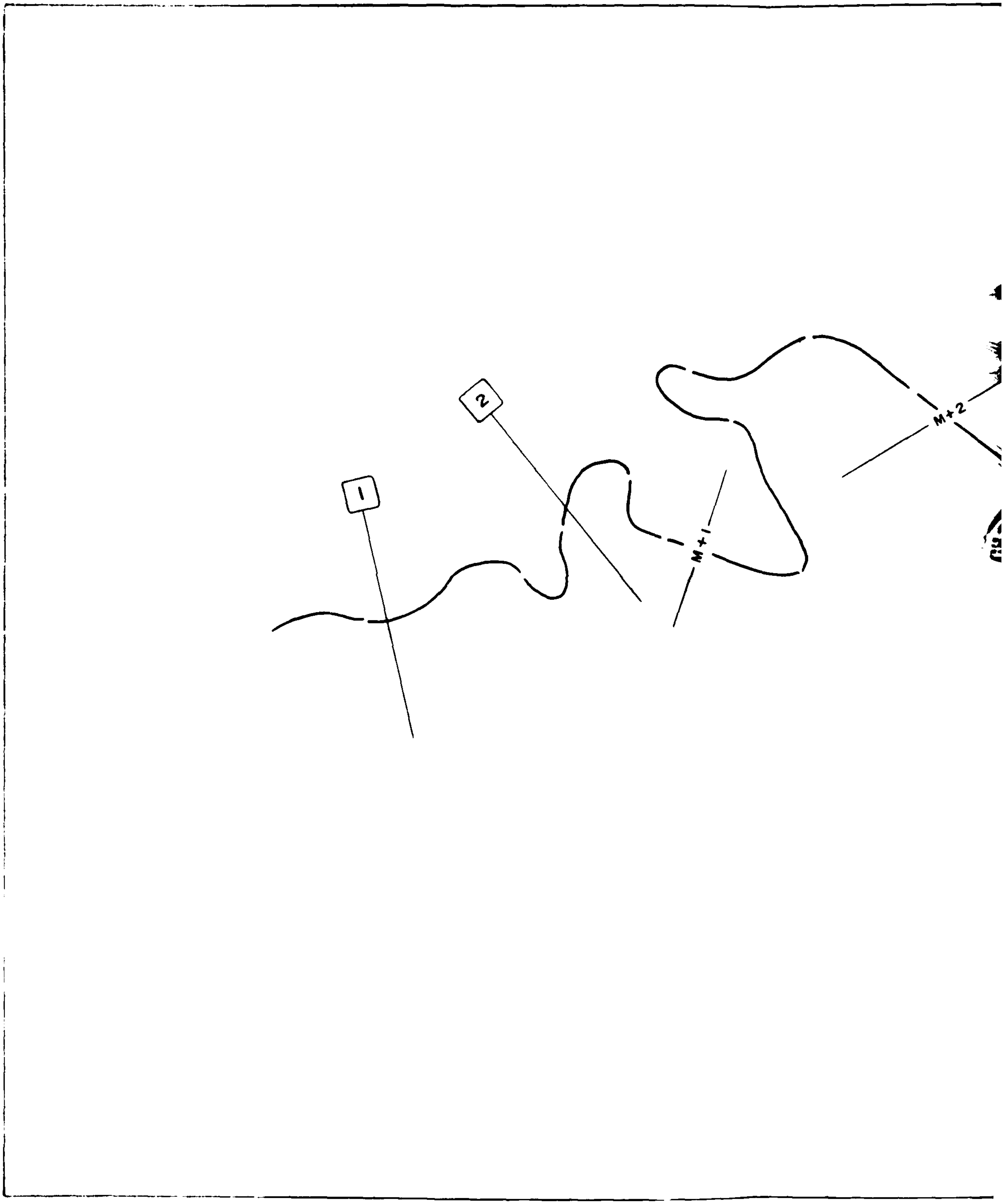


DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

FLOOD PLAIN INFORMATION

ONEIDA CREEK
NEW YORK
INDEX SHEETS
JULY, 1973

PLATE 2



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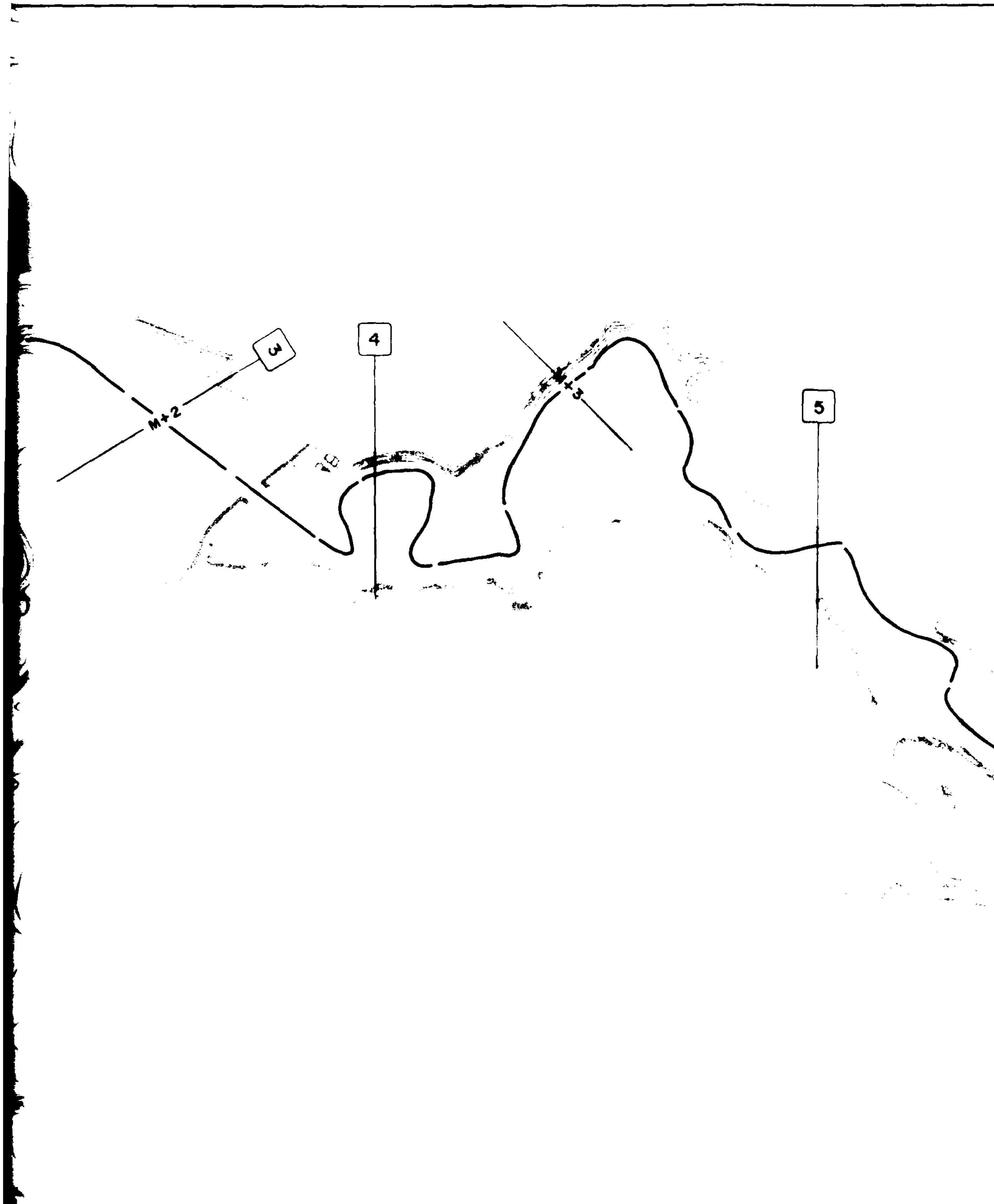

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CHANNEL

NOTES

1. MAP BASED ON U.S.G.S. 7.5 MIN. QUADRANGLE SHEETS VERNON, N.Y., 1955; ONEIDA, N.Y., 1955; SYLVAN BEACH, N.Y., 1955. ADDITIONS AND ADJUSTMENTS MADE BY CORPS OF ENGINEERS.
2. LIMITS OF OVERFLOW SHOWN MAY VARY FROM ACTUAL LOCATION ON GROUND AS EXPLAINED IN THE REPORT.
3. AREAS OUTSIDE THE FLOODWAY MAY BE SUBJECT TO FLOODING FROM LOCAL RUNOFF.
4. VERNON, N.Y. AND ONEIDA, N.Y. QUADRANGLES CONTOUR INTERVAL—10 FEET
SYLVAN BEACH, N.Y. QUADRANGLE CONTOUR INTERVAL—5 FEET

SCALE IN FEET

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DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

FLOOD PLAIN INFORMATION

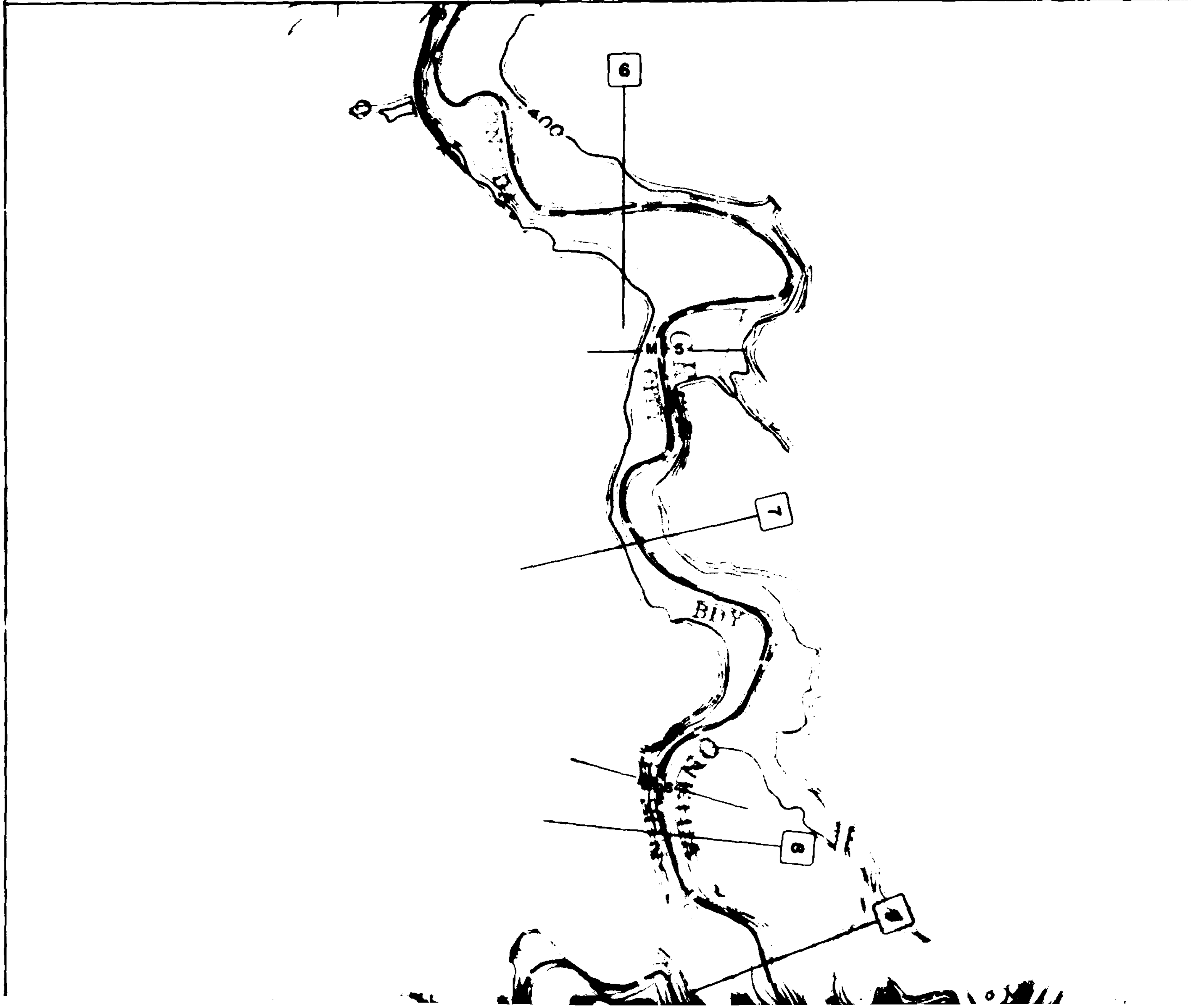
ONEIDA CREEK
NEW YORK

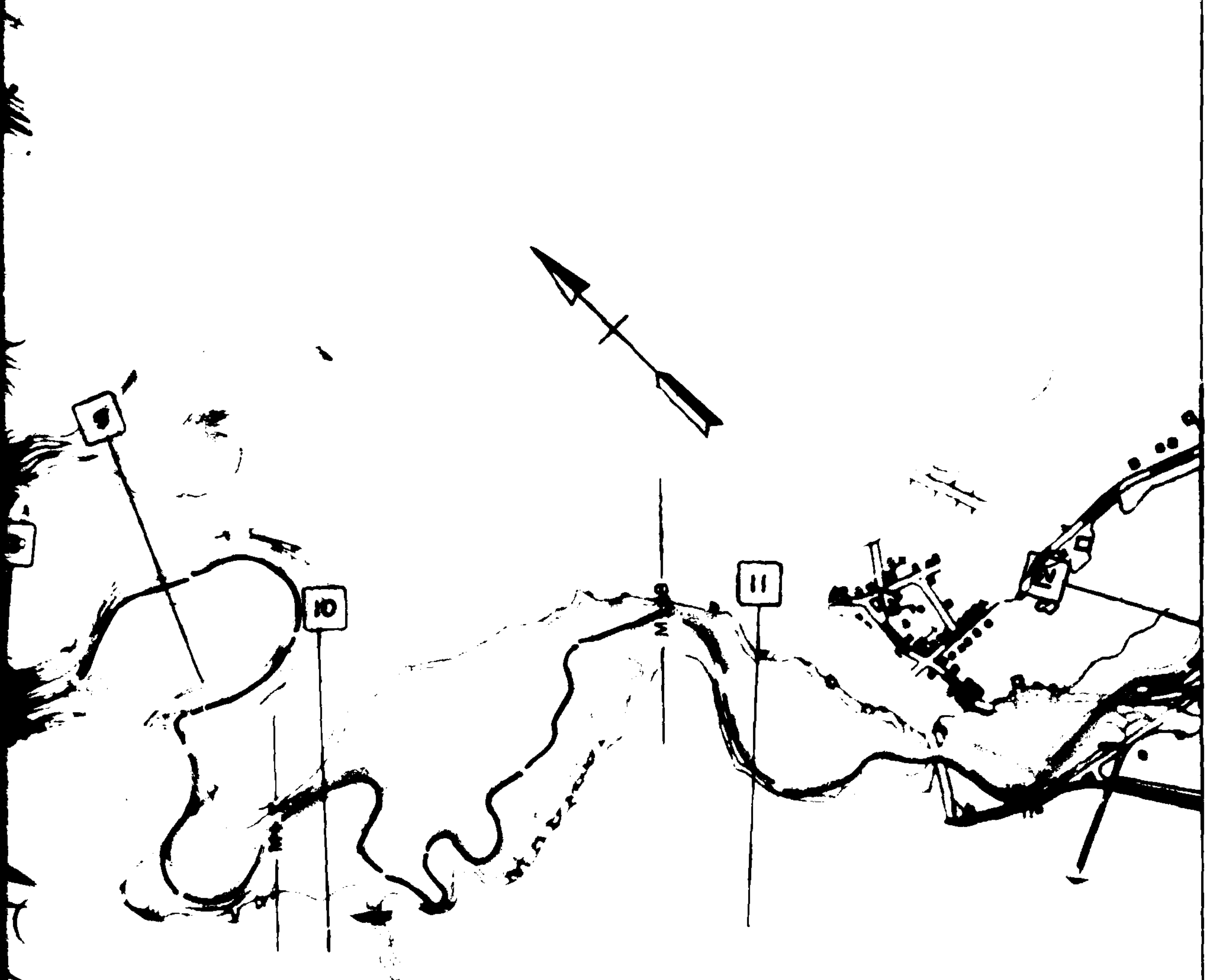
FLOODED AREAS

JULY 1973

PLATE 3

MATCH LINE PLATE 3





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NOTES

1. MAP BASED ON U.S.G.S 7.5 MIN. QUADRANGLE SHEETS VERNON, N.Y., 1955; ONEIDA, N.Y., 1955; SYLVAN BEACH, N.Y., 1955. ADDITIONS AND ADJUSTMENTS MADE BY CORPS OF ENGINEERS.
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4. VERNON, N.Y. AND ONEIDA, N.Y. QUADRANGLES CONTOUR INTERVAL—10 FEET
SYLVAN BEACH, N.Y. QUADRANGLE CONTOUR INTERVAL—5 FEET

SCALE IN FEET

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DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

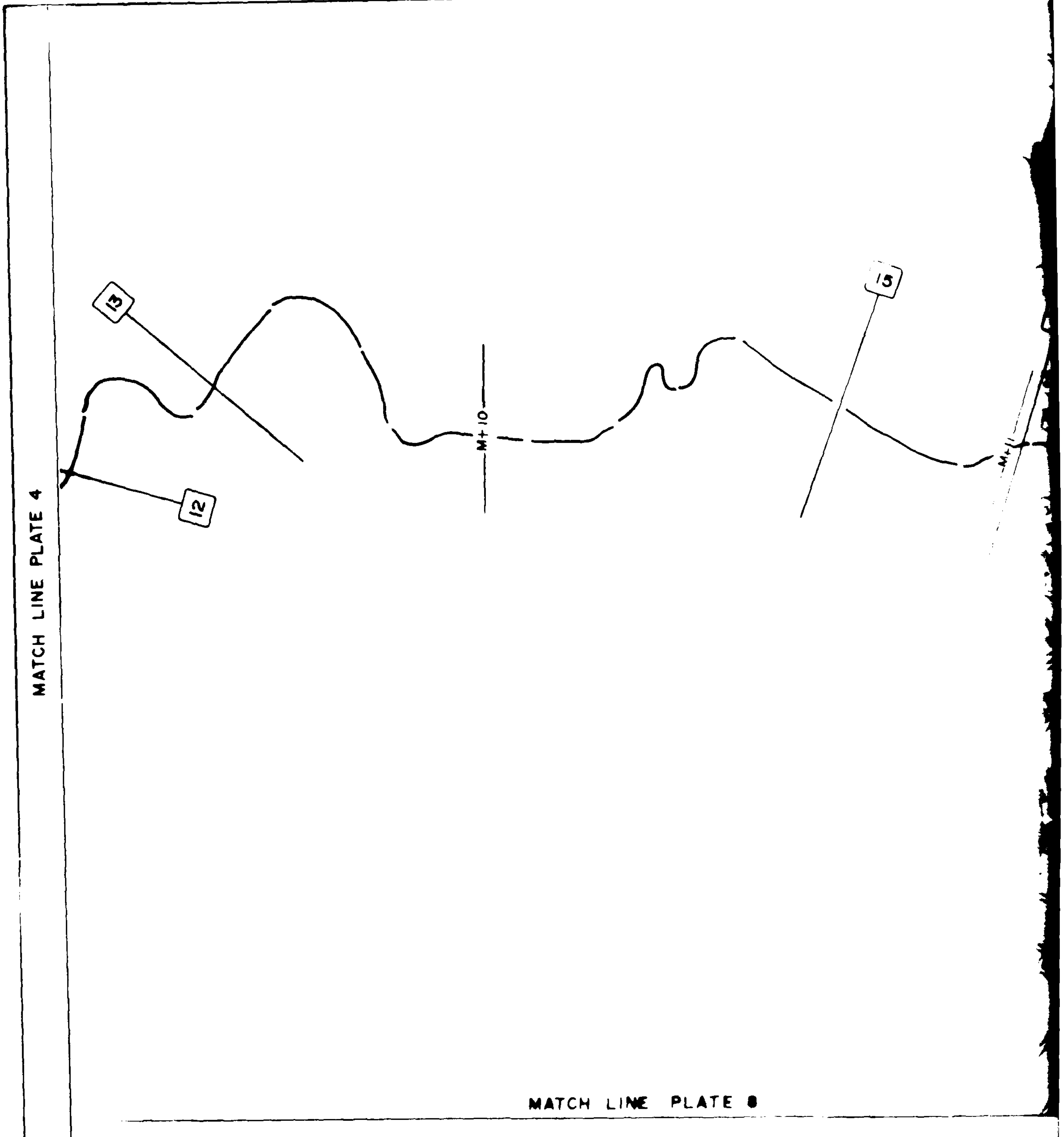
FLOOD PLAIN INFORMATION

ONEIDA CREEK
NEW YORK

FLOODED AREAS

JULY 1973

PLATE 4


MATCH LINE PLATE 4
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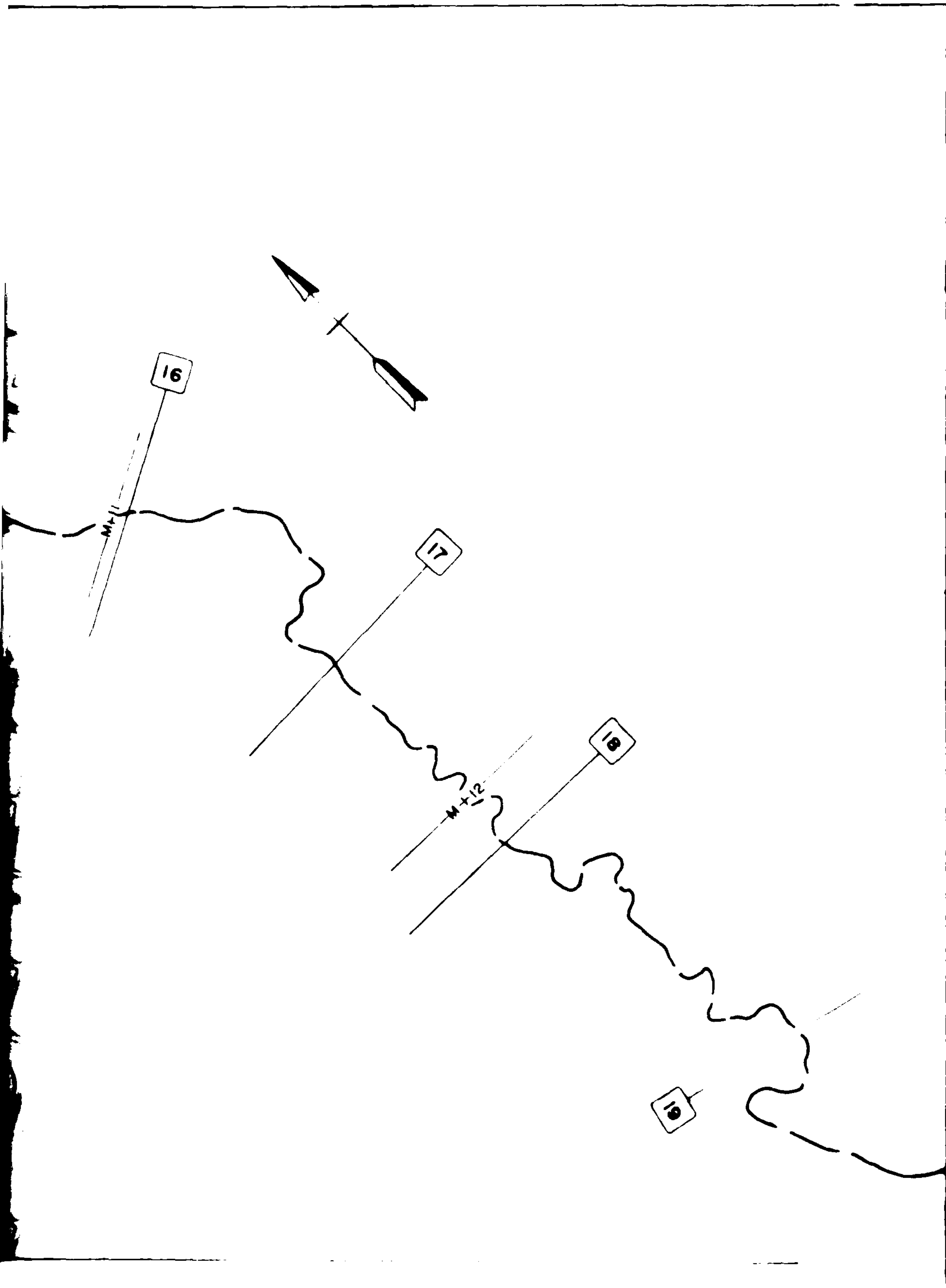
MATCH LINE PLATE 8



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MAP BASED ON U.S.G.S. 7.5 MIN. QUADRANGLE SHEETS VERNON, N.Y., 1955; ONEIDA, N.Y., 1955; SYLVAN BEACH, N.Y., 1955. ADDITIONS AND ADJUSTMENTS MADE BY CORPS OF ENGINEERS.

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SYLVAN BEACH, N.Y. QUADRANGLE CONTOUR INTERVAL – 5 FEET

SCALE IN FEET

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DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

FLOOD PLAIN INFORMATION

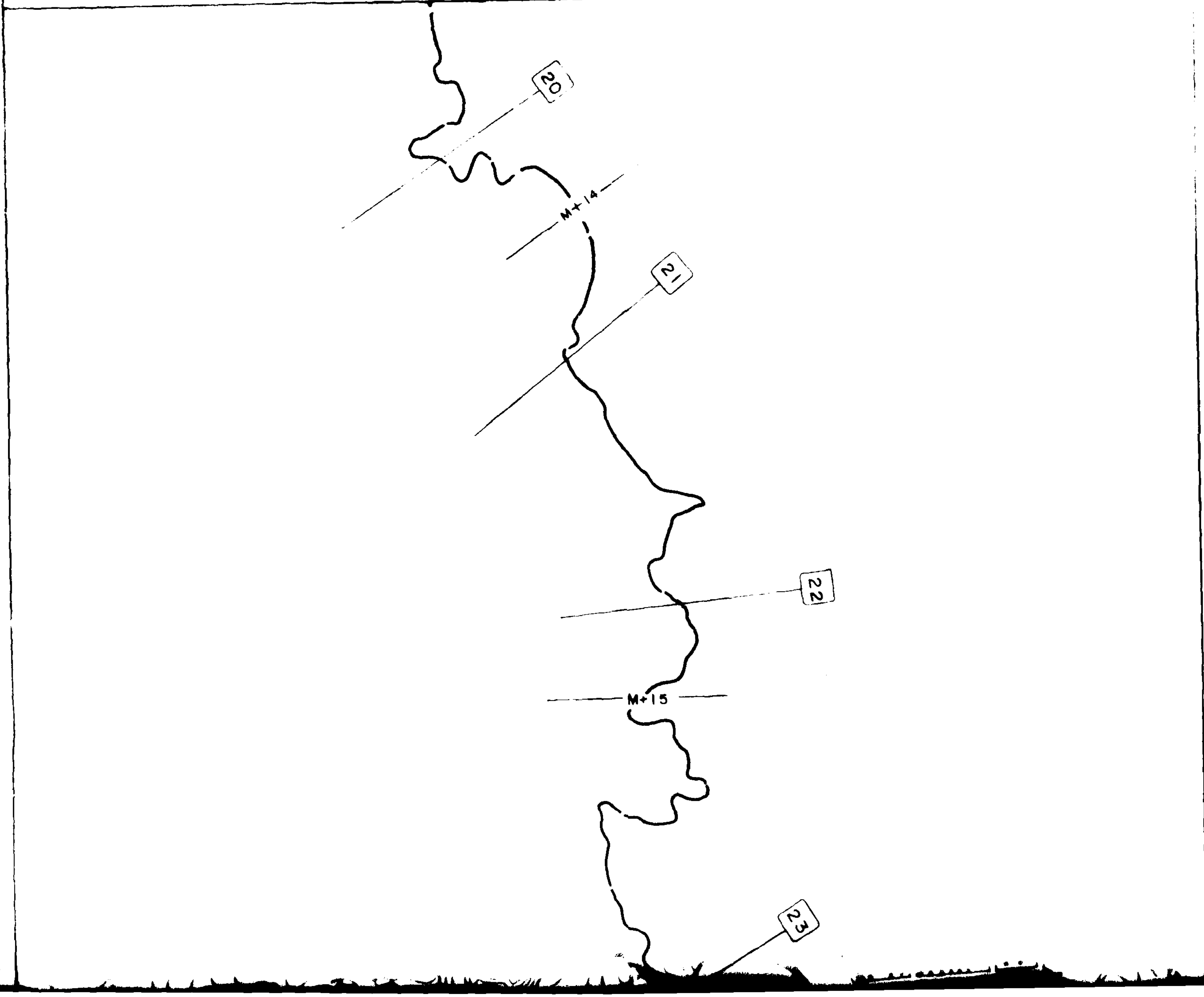
ONEIDA CREEK
NEW YORK

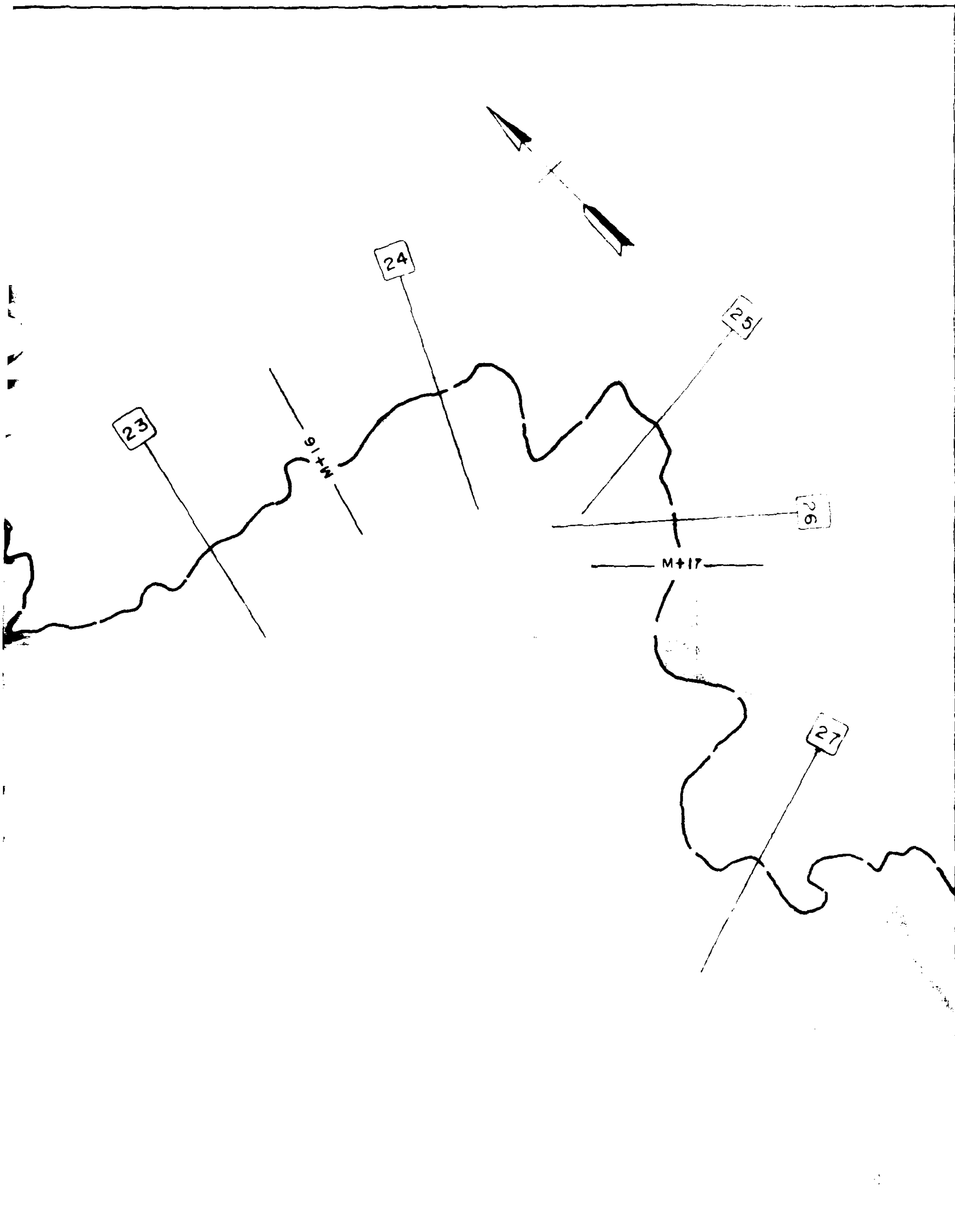
FLOODED AREAS

JULY 1973

PLATE 5

MATCH LINE PLATE 5





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LEGEND

OVERFLOW LIMITS

INTERMEDIATE REGIONAL FLOOD

STANDARD PROJECT FLOOD

M+15 MILES ABOVE MOUTH

22 CROSS SECTION

250 GROUND ELEVATION IN FEET (U.S.C.& G.S.) SEA LEVEL DATUM

CHANNEL

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SYLVAN BEACH, N.Y. QUADRANGLE CONTOUR INTERVAL—5 FEET

SCALE IN FEET

0 1000 2000

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

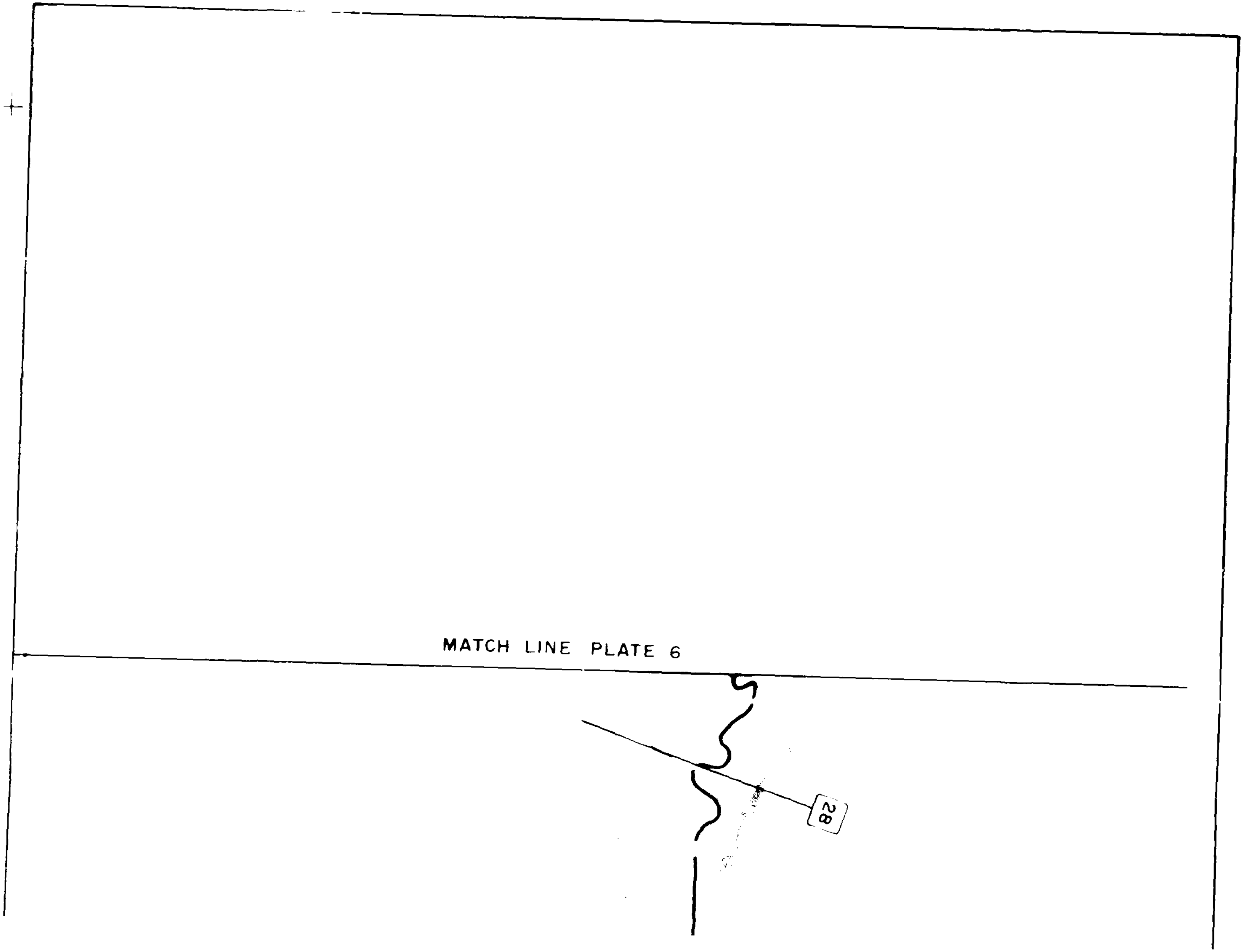
FLOOD PLAIN INFORMATION

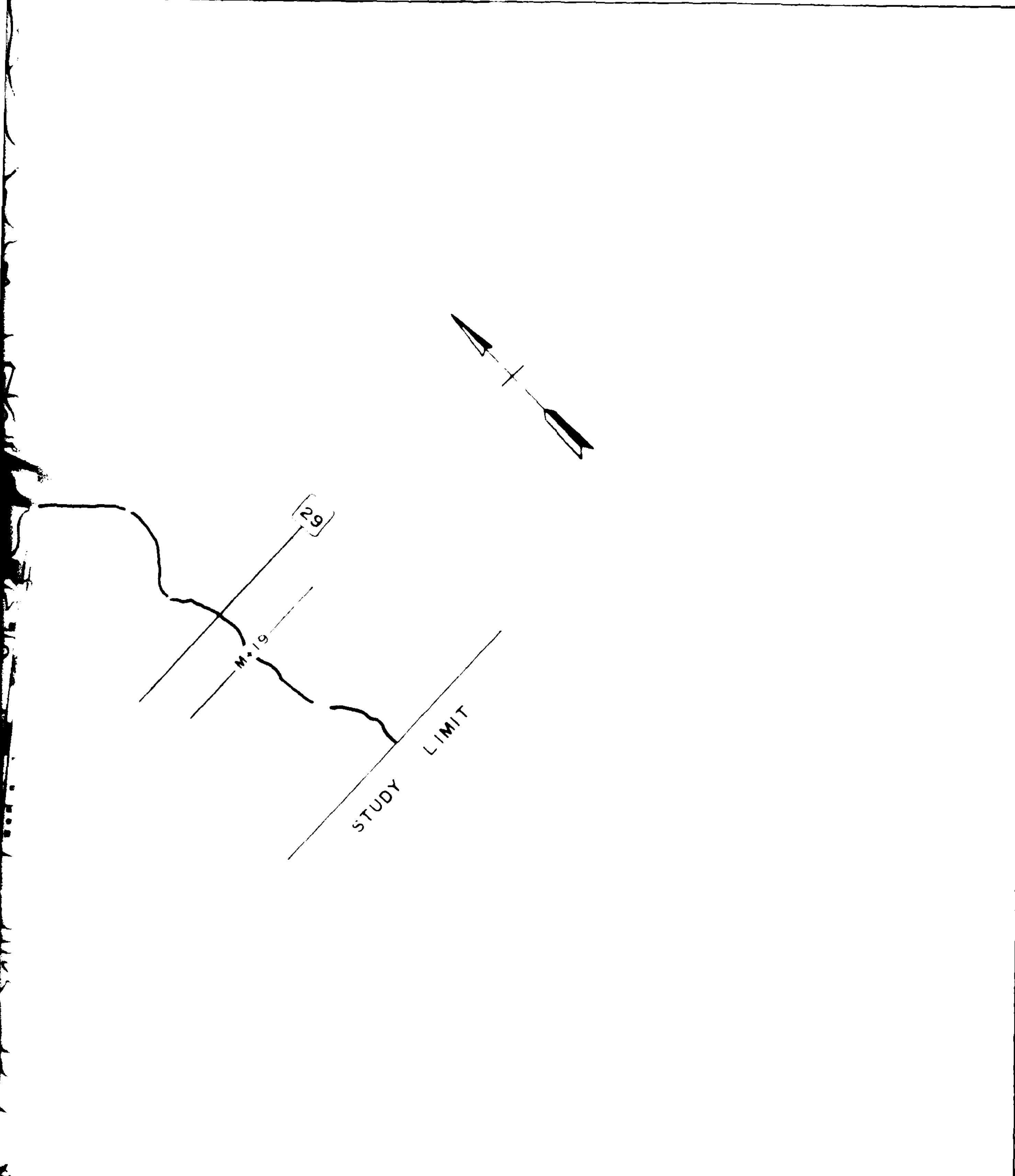
ONEIDA CREEK
NEW YORK

FLOODED AREAS

JULY 1973

PLATE 6


MATCH LINE PLATE 6
28



M+1
22
250

NOTES

MAP B
SHEETS
SYLVAN
ADJUST

2 LIMITS
FROM A
EXPLAI

3 AREAS
SUBJEC

4 VERNO
CONTOU
SYLVA
INTERV

0

BUFFA

FL

LEGEND

OVERFLOW LIMITS

INTERMEDIATE REGIONAL FLOOD — STANDARD PROJECT FLOOD

M+19 — MILES ABOVE MOUTH

$\boxed{22}$ — CROSS SECTION

—250— GROUND ELEVATION IN FEET (U.S.C.& G.S.) SEA LEVEL DATUM

— — CHANNEL

NOTES

1. MAP BASED ON U.S.G.S. 7.5 MIN. QUADRANGLE SHEETS VERNON, N.Y., 1955; ONEIDA, N.Y., 1955; SYLVAN BEACH, N.Y., 1955. ADDITIONS AND ADJUSTMENTS MADE BY CORPS OF ENGINEERS.
2. LIMITS OF OVERFLOW SHOWN MAY VARY FROM ACTUAL LOCATION ON GROUND AS EXPLAINED IN THE REPORT.
3. AREAS OUTSIDE THE FLOODWAY MAY BE SUBJECT TO FLOODING FROM LOCAL RUNOFF.
4. VERNON, N.Y. AND ONEIDA, N.Y. QUADRANGLES CONTOUR INTERVAL—10 FEET
SYLVAN BEACH, N.Y. QUADRANGLE CONTOUR INTERVAL—5 FEET

SCALE IN FEET

0 1000 2000

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

FLOOD PLAIN INFORMATION

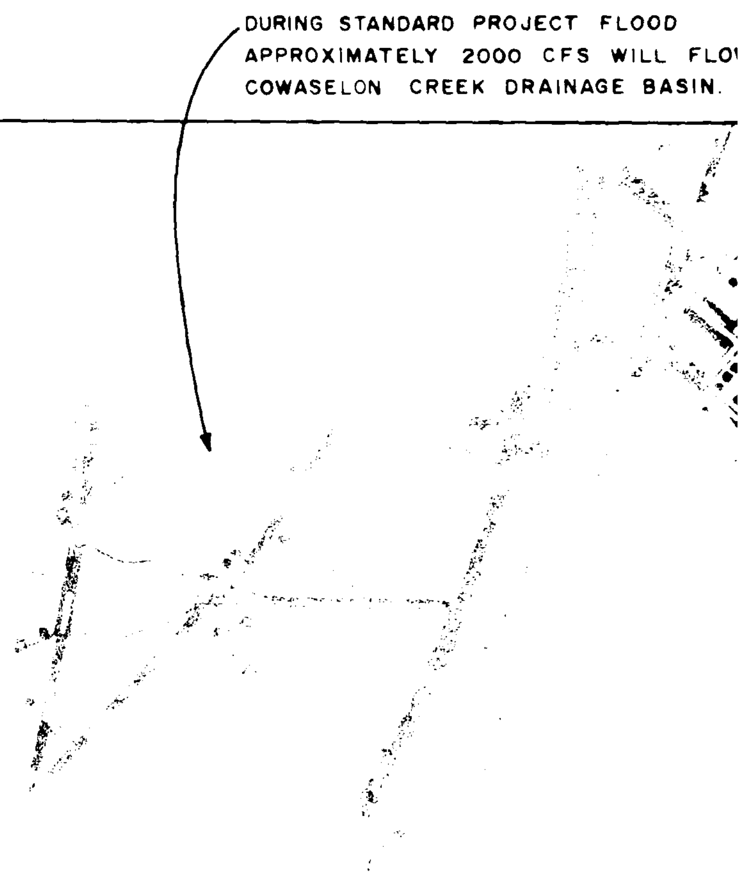
ONEIDA CREEK

[illegible] YORK

FLOODED AREAS

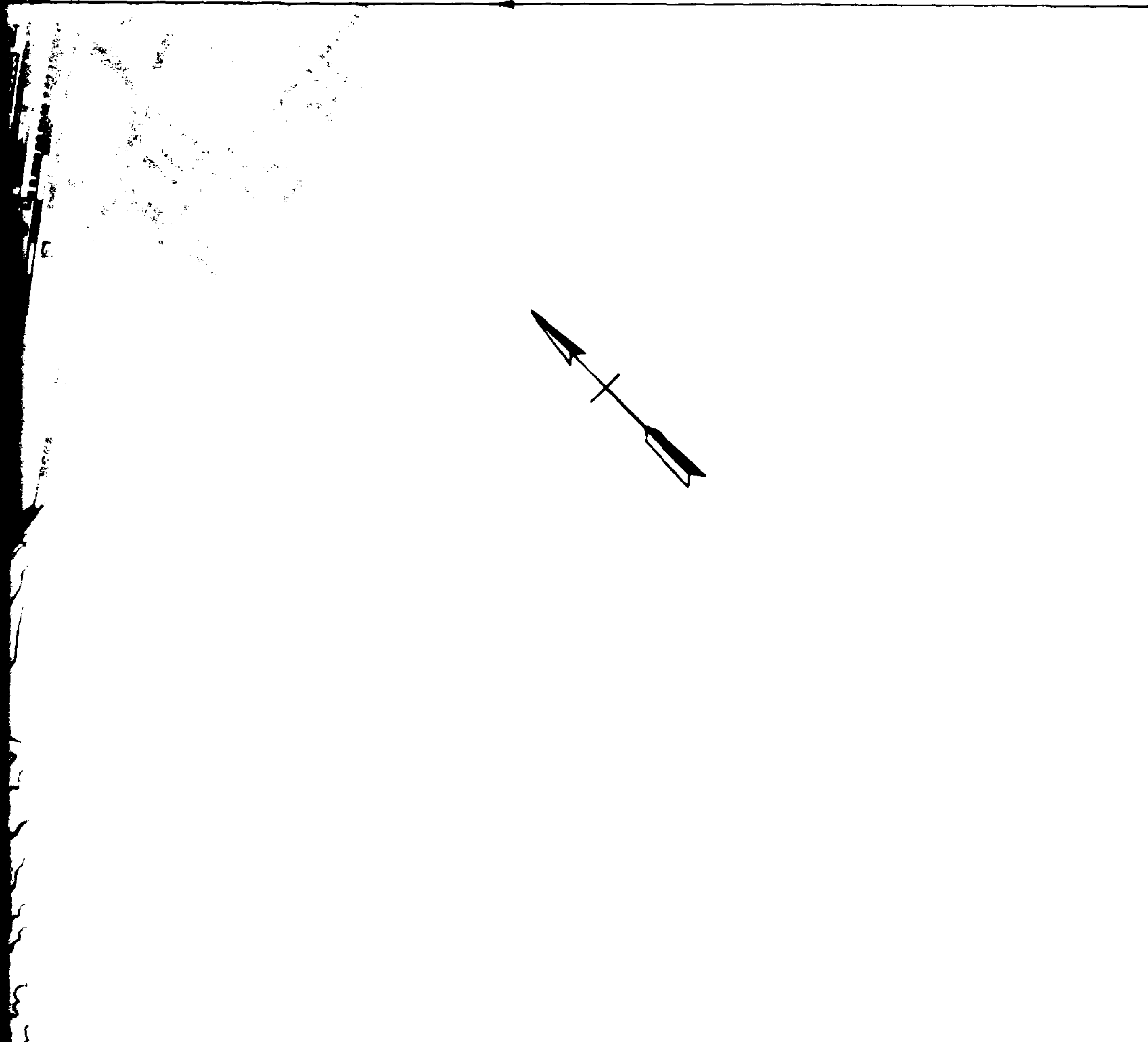
JULY 1973

PLATE 7


DURING STANDARD PROJECT FLOOD
APPROXIMATELY 2000 CFS WILL FLO
COWASELON CREEK DRAINAGE BASIN.

JECT FLOOD
CFS WILL FLOW INTO
RAINAGE BASIN.

MATCH LINE PLATE 5



OVE

INTI
REG
FLO

MILI

22 CRO

250 GRO
G S.

CHA

NOTES

1. MAP BASED ON
SHEETS VERN
SYLVAN BEACH
ADJUSTMENTS

2. LIMITS OF OV
FROM ACTUAL
EXPLAINED IN

3. AREAS OUTSID
SUBJECT TO F

4. VERNON, N.Y.
CONTOUR INTE
SYLVAN BEAC
INTERVAL—5

0

DEPAR
BUFFALO DIS
BU
FLOOD
OI

FL

LEGEND

OVERFLOW LIMITS

INTERMEDIATE REGIONAL FLOOD

STANDARD PROJECT FLOOD

MILES ABOVE MOUTH

22 CROSS SECTION

250 GROUND ELEVATION IN FEET (U.S.C. & G.S.) SEA LEVEL DATUM

CHANNEL

NOTES

1. MAP BASED ON U.S.G.S. 7.5 MIN. QUADRANGLE SHEETS VERNON, N.Y., 1955; ONEIDA, N.Y., 1955; SYLVAN BEACH, N.Y., 1955. ADDITIONS AND ADJUSTMENTS MADE BY CORPS OF ENGINEERS.
2. LIMITS OF OVERFLOW SHOWN MAY VARY FROM ACTUAL LOCATION ON GROUND AS EXPLAINED IN THE REPORT.
3. AREAS OUTSIDE THE FLOODWAY MAY BE SUBJECT TO FLOODING FROM LOCAL RUNOFF.
4. VERNON, N.Y. AND ONEIDA, N.Y. QUADRANGLES CONTOUR INTERVAL—10 FEET
SYLVAN BEACH, N.Y. QUADRANGLE CONTOUR INTERVAL—5 FEET

SCALE IN FEET

0 1000 2000

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

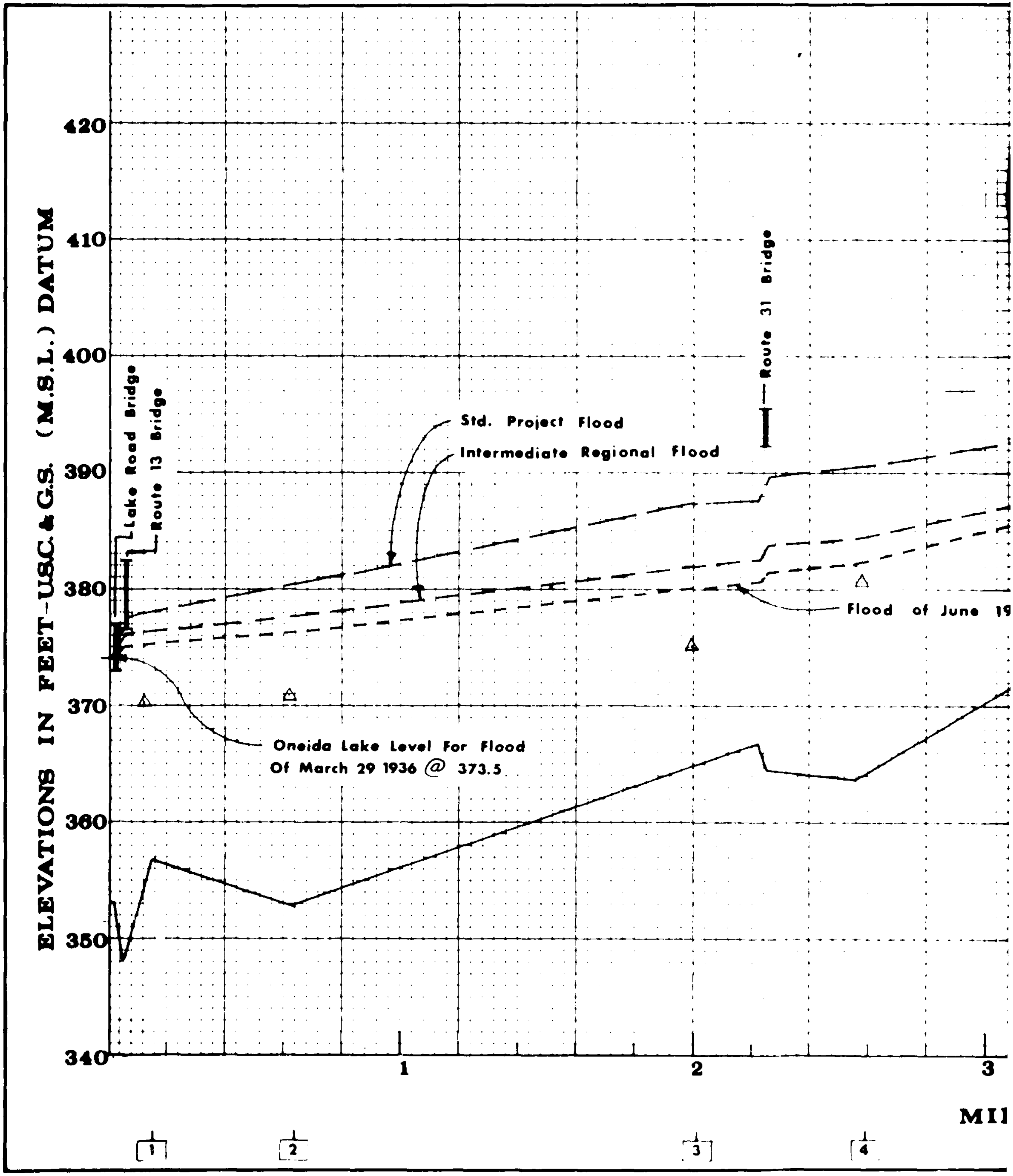
FLOOD PLAIN INFORMATION

ONEIDA CREEK
NEW YORK

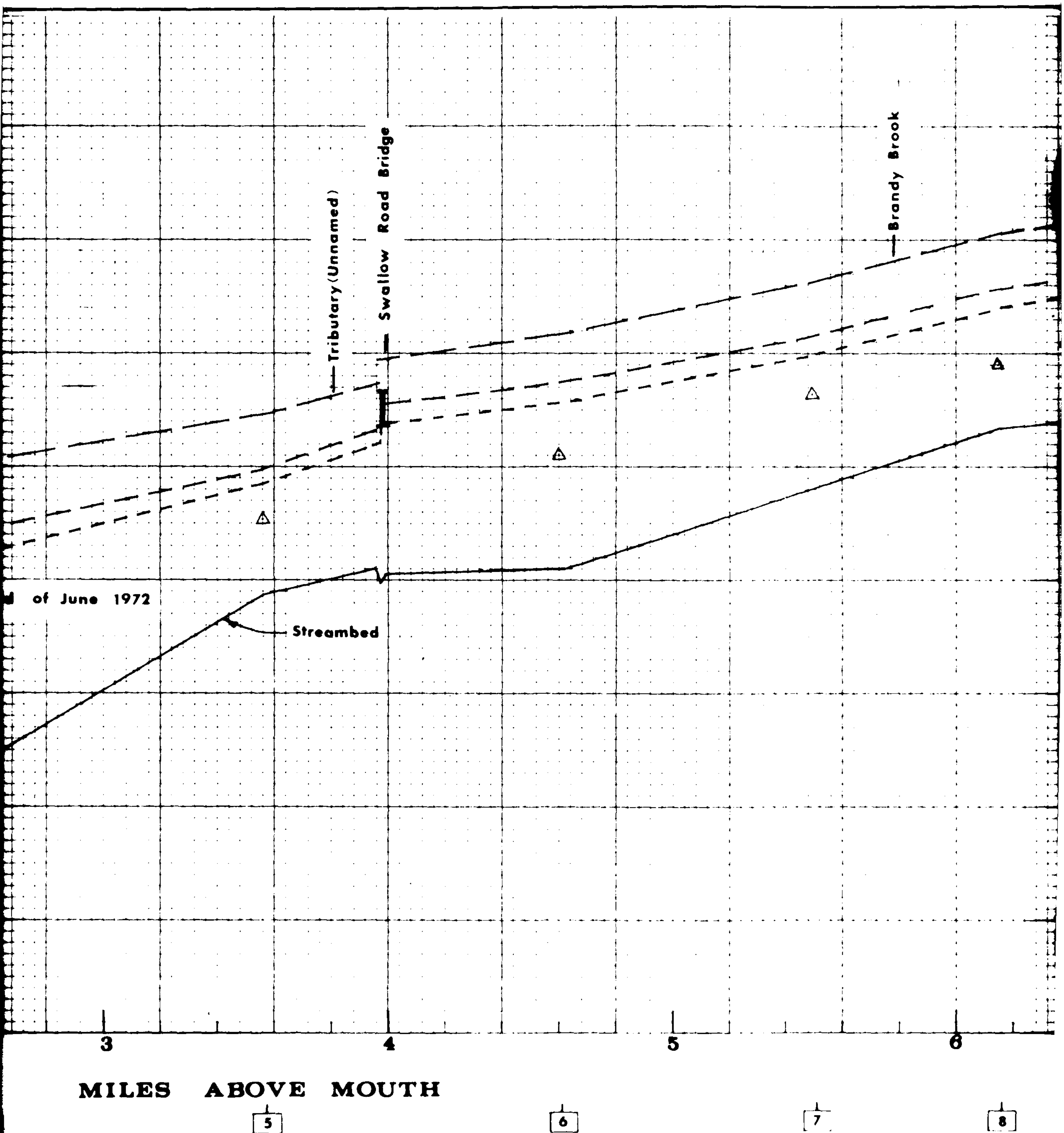
FLOODED AREAS

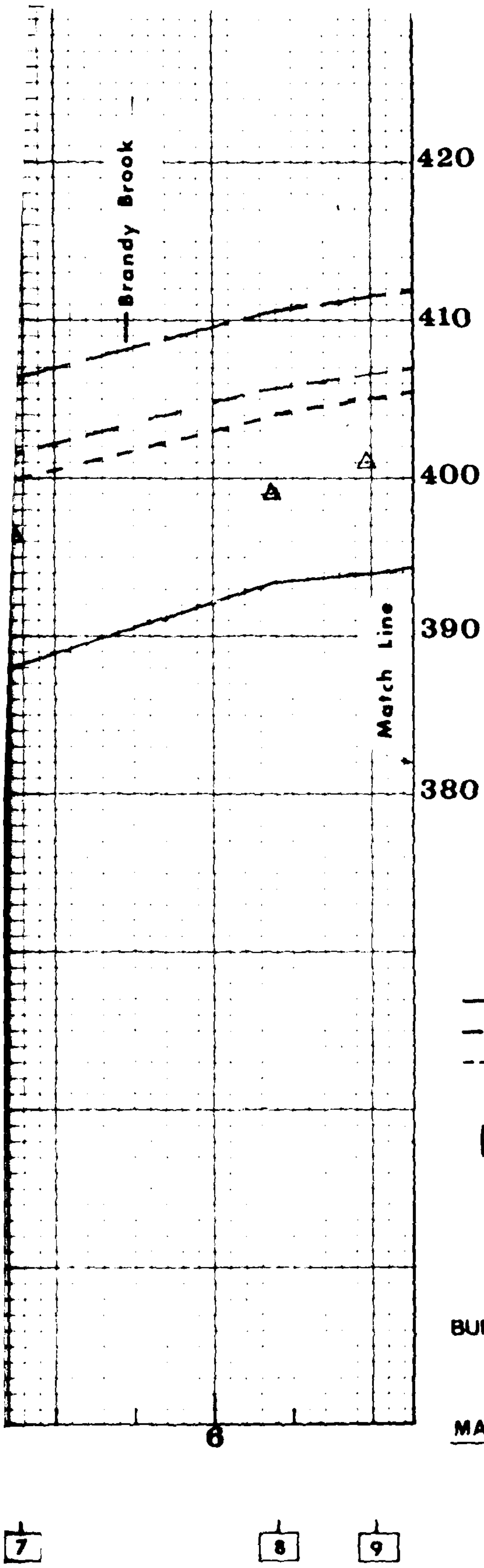
JULY 1973

PLATE 8



ELEVATIONS IN FEET-USC.& G.S. (M.S.L.) DATUM
420
410
400
390
380
370
360
350
340
Lake Road Bridge
Route 13 Bridge
Route 31 Bridge
Std. Project Flood
Intermediate Regional Flood
Flood of June 19
Oneida Lake Level For Flood
Of March 29 1936 @ 373.5
1
2
3
MI
1
2
3
4


Tributary (Unnamed)
Swallow Road Bridge
Brandy Brook
of June 1972
Streambed
3
4
5
6
MILES ABOVE MOUTH
5
6
7
8



LEGEND

Bridge Floor
Underclearance

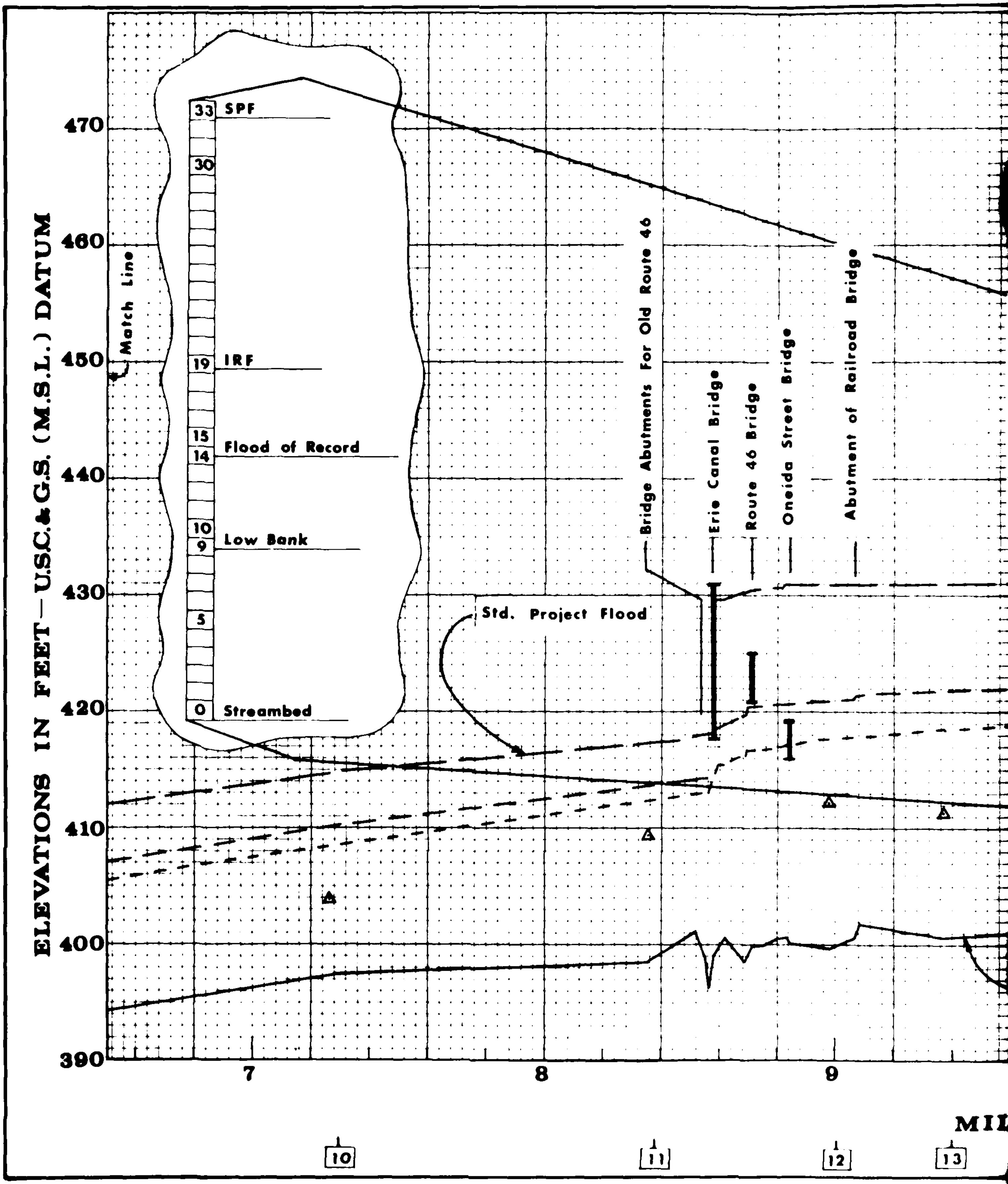
Standard Project Flood
Intermediate Regional Flood
Flood Of June 1972
Low Bank
5 Cross Section Location

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK
FLOOD PLAIN INFORMATION
ONEIDA CREEK
MADISON-ONEIDA COUNTIES, NEW YORK

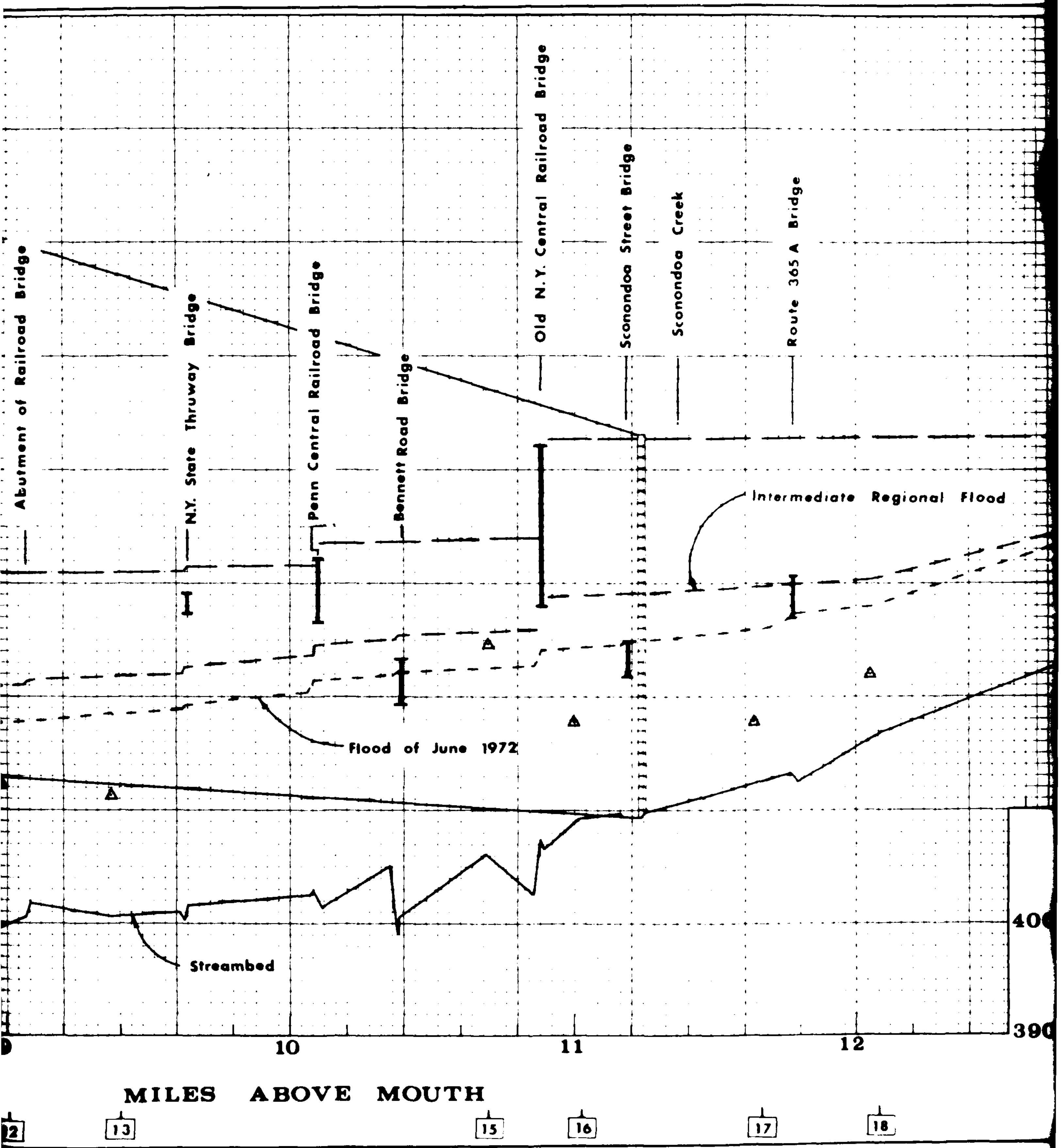
HIGH WATER PROFILE

JULY 1973

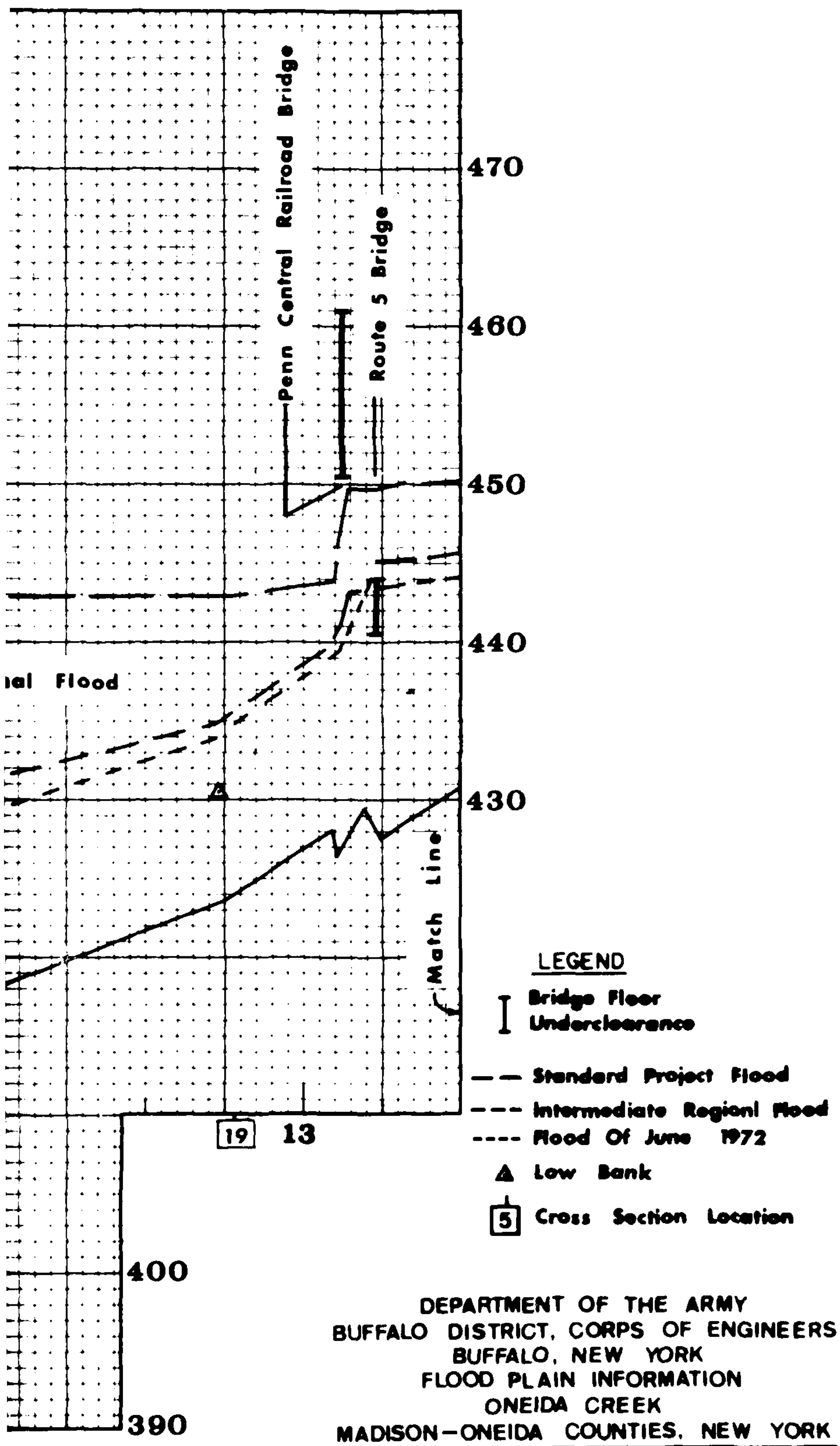
PLATE 9



ELEVATIONS IN FEET—U.S.C.& G.S. (M.S.L.) DATUM
470
460
450
440
430
420
410
400
390
Match Line
33 SPF
30
19 IRF
15
14 Flood of Record
10
9 Low Bank
5
0 Streambed
Std. Project Flood
Bridge Abutments For Old Route 46
Erie Canal Bridge
Route 46 Bridge
Oneida Street Bridge
Abutment of Railroad Bridge
7
8
9
MIL
10
11
12
13

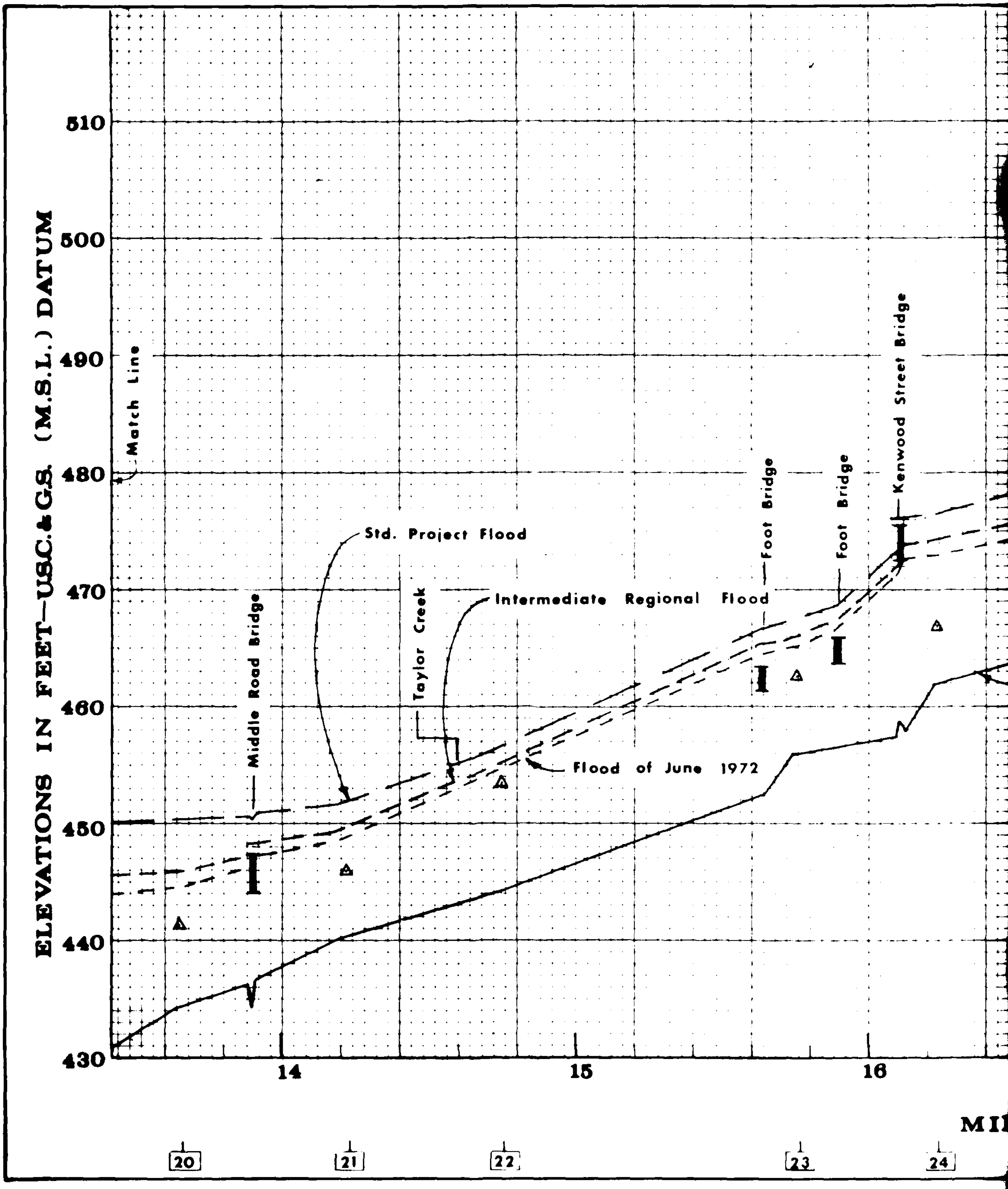


Abutment of Railroad Bridge
N.Y. State Thruway Bridge
Penn Central Railroad Bridge
Bennett Road Bridge
Old N.Y. Central Railroad Bridge
Sconondoa Street Bridge
Sconondoa Creek
Route 365 A Bridge
Intermediate Regional Flood
Flood of June 1972
Streambed
400
390
10
11
12
MILES ABOVE MOUTH
12
13
15
16
17
18

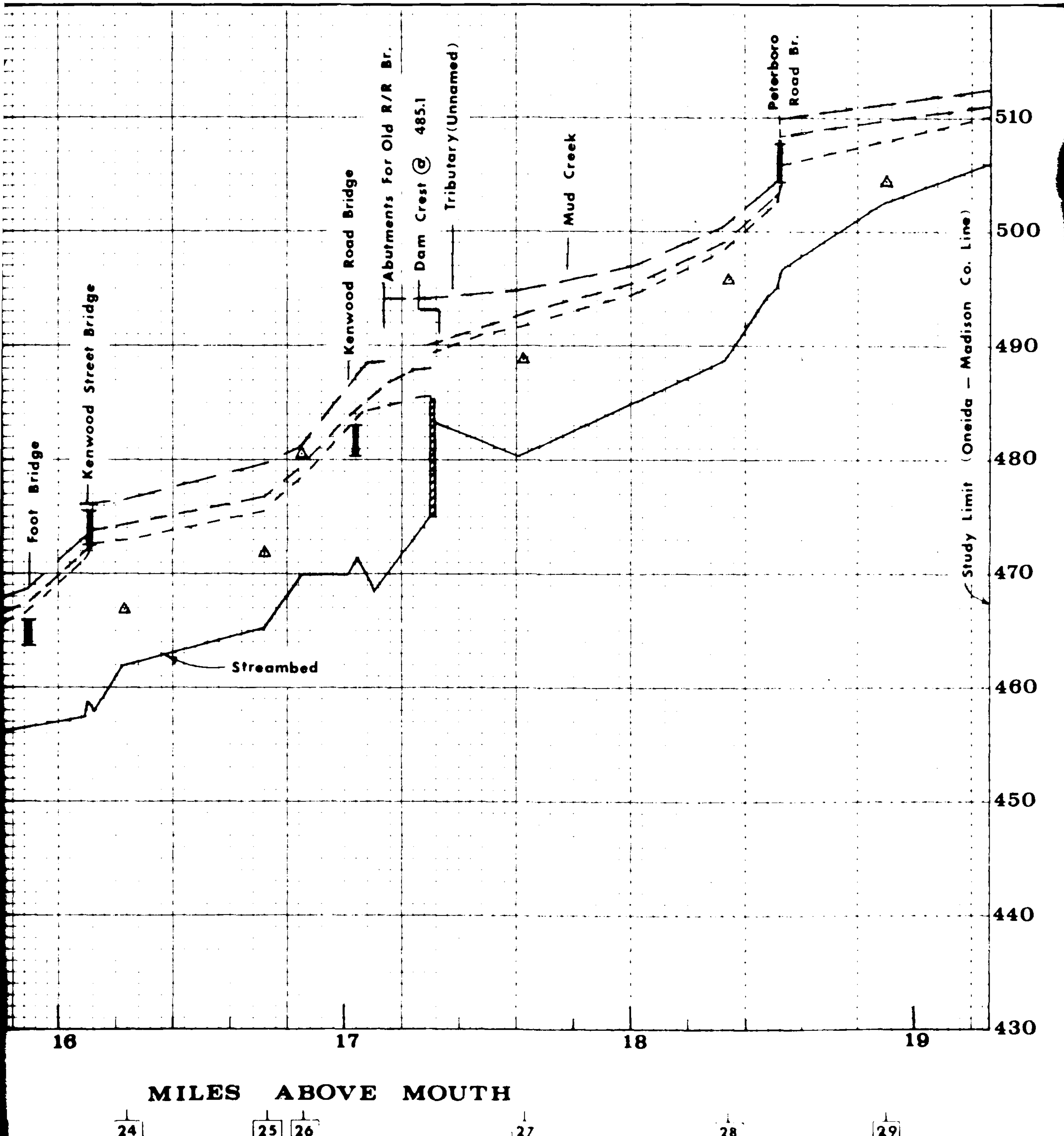


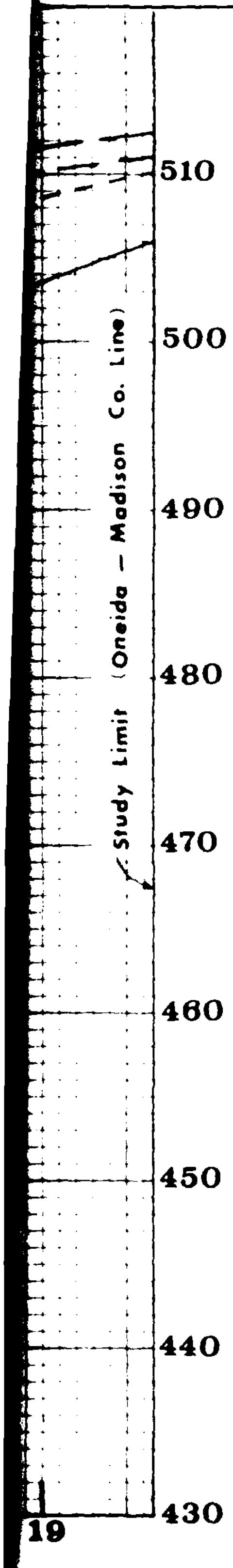
DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK
FLOOD PLAIN INFORMATION
ONEIDA CREEK
MADISON-ONEIDA COUNTIES, NEW YORK

HIGH WATER PROFILE
JULY 1973
PLATE 10



ELEVATIONS IN FEET—USC.& G.S. (M.S.L.) DATUM
510
500
490
480
470
460
450
440
430
Match Line
Std. Project Flood
Intermediate Regional Flood
Middle Road Bridge
Taylor Creek
Flood of June 1972
Foot Bridge
Foot Bridge
Kenwood Street Bridge
14
15
16
MI
20
21
22
23
24


Foot Bridge
Kenwood Street Bridge
Kenwood Road Bridge
Abutments For Old R/R Br.
Dam Crest @ 485.1
Tributary (Unnamed)
Mud Creek
Peterboro Road Br.
Study Limit (Oneida — Madison Co. Line)
Streambed
510
500
490
480
470
460
450
440
430
16
17
18
19
MILES ABOVE MOUTH
24
25
26
27
28
29



LEGEND

Bridge Floor
Underclearance

Standard Project Flood

Intermediate Regional Flood

Flood Of June 1972

Low Bank

5 Cross Section Location

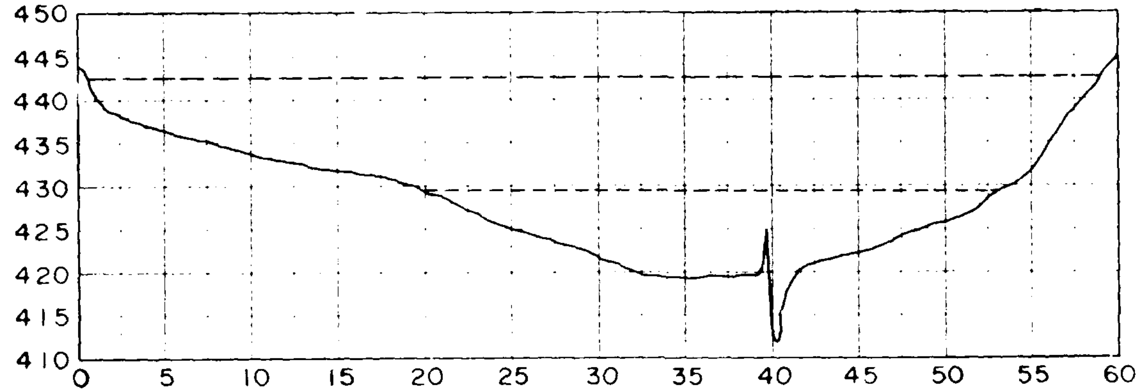
DEPARTMENT OF THE ARMY
BUFFALO DISTRICT. CORPS OF ENGINEERS
BUFFALO, NEW YORK
FLOOD PLAIN INFORMATION
ONEIDA CREEK
MADISON-ONEIDA COUNTIES, NEW YORK

HIGH WATER PROFILE

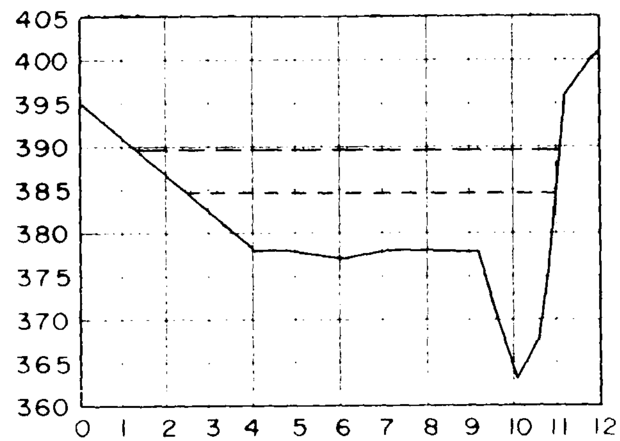
JULY 1973

PLATE 11

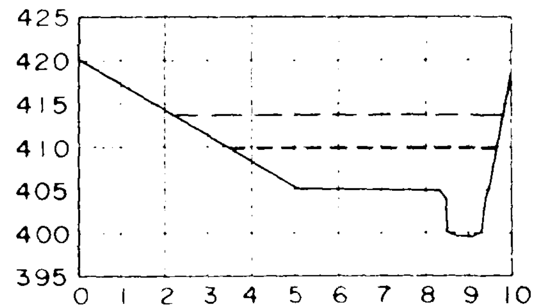
ELEVATIONS IN FEET U.S.C. & G.S. DATUM



CROSS SECTION NO. 17
MILE 11.67



CROSS SECTION NO. 4
MILE 2.49



CROSS SECTION NO 10
MILE 7.30

LEGEND

— — — Standard Project Flood
- - - - - - Intermediate Regional Flood
Sections taken looking downstream

HORIZONTAL DISTANCES IN HUNDREDS OF FEET

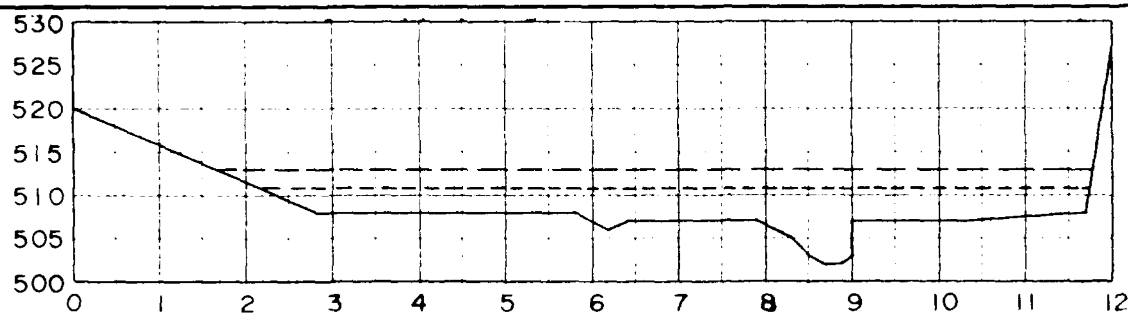
DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

FLOOD PLAIN INFORMATION

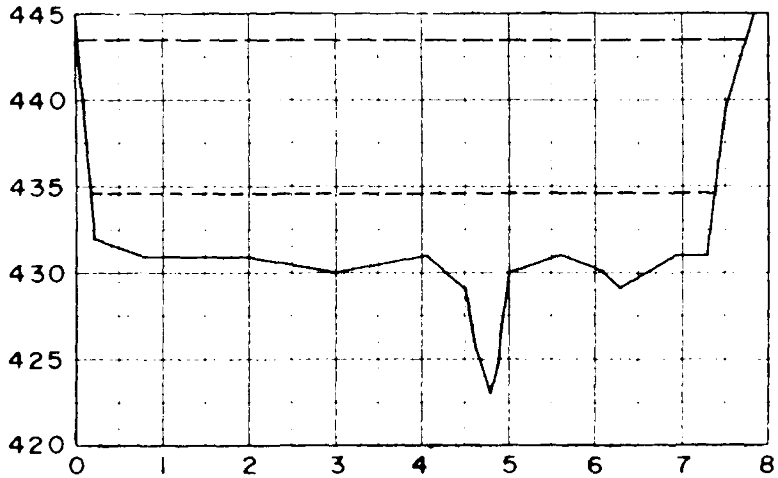
SELECTED CROSS SECTIONS
ONEIDA CREEK NEW YORK

JULY, 1973

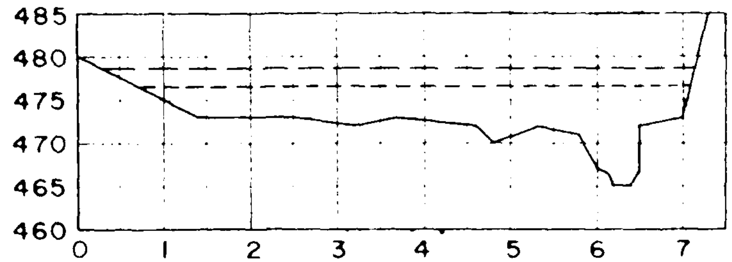
ELEVATIONS IN FEET U.S.C. & G.S. DATUM



CROSS SECTION NO. 29
MILE 19.26



CROSS SECTION NO. 19
MILE 12.82



CROSS SECTION NO. 25
MILE 16.72

LEGEND

— — — Standard Project Flood
- - - - - - Intermediate Regional Flood
Sections taken looking downstream

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
BUFFALO, NEW YORK

FLOOD PLAIN INFORMATION

SELECTED CROSS SECTIONS
ONEIDA CREEK NEW YORK

JULY, 1973

HORIZONTAL DISTANCES IN HUNDREDS OF FEET

DATE

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8